Good evidence that LCN's aggression, gradually increasing, burst of LCN's by adult bird on ground before flying up to attack me by sexual change.

Lots of T from T, presumably FB, by juvenile birds.

These attacks by the one territorial pair of adults, receiving my attention, have continued off and on for two hours.

The LCN's are given so often and so loudly by these adults that it suggests that they can extend into regions of rather strong motivation. LCN's often given when I would expect a long call.

This attacking pair must be on their pairing territory. I think, but they are well along in the pairing process. No FB or segregation today; probably yesterday, however. But still there isn't much violent hostility between the birds. Often they are confined to a vague but difficult to tell if ritualized or not, U, with or without equally vague NF movements, or a series of LCN's.

Each LCN on ground is accompanied by definite forward movement of head & neck. Prominently unilateral, but often looks like fruit peck. This last appearance is almost certain in unloading.

Here syllables incomplete. LCN nuance about 5-8, followed by "Kew"'s with T's.

Have heard one trisyllabic ACL: "Kek Kek Kek". Otherwise all monosyllabic.

To sum up: This species would appear to be a typical hooded gull of the atricilla - pipicans, and presumably primitive, type. In addition, the ticking would suggest a relationship with furcatus.
Juniors? Bud on ledge of cliff looks like potential nest-site. Gy was not where we or another group had marked. Each note a Rattle or Jutung (small bell jutung in my notes, but really a rattle), quite mechanical in sound, "n-urn-urn-urn." Each note accompanied by slight but deft note upward and forward stretching of the neck. Head remains more or less horizontal. Bill hardly opened during note. Relaxation complete between notes.

I have heard same note given by flying birds (from usual unmitigated postures).

September 27, 1923
Santa Cruz
Acadia Bay
November 5, 1955

Galapagos

On my return from Galapagos, found Galapagos Ring-bill still full of cactophages, but also many pipicans, both grey and adult.

November 5, 1955

Chimney, Peru

Adult melitaeus

when you approach it, it tries to steal food. I from H.

Adult melitaeus, non-migratory plumage, does not

Huge flocks of yay quills around. Meritt pipicans

tilt their noisily few adults. They live a few attacella

Lavare, the quivy typical gus, LCN's in air

Belchero

November 7, 1955

La Fatutera, Mr. Fiscoy

From

Larus belcher, looks very much like Kennaway Gull

perhaps a little smaller, infinitesimal, smaller headed. Short

winged not at all like Ring-bill. Bill a bit long, larger, orange

green. Dark eye (looks small). Small black spot on upper

mandible tip, large red spot on almost all distal body of lower

mandible, gives most peculiar effect.

N.B. it resembles V &= F, One likewise intermediate,

on "aux" side, "cher" "may" "aux" Aux & V hand-shape like

Nicol's photographs of Kennaway, my drawings of Ring-bill.
Bill pointed very strongly upward in "auw" U. Eye semi-closed, in at least one case. Carpal points visible, but not held out very far.

Voice of this species quite large, lower in type. Perhaps particularly reminiscent of fuligineses. Rather nasal and quite prone to break LEV in slight (ural) portions. Have seen one in rather slight to one-lo. About one extreme at the most extreme. Rice-ball patterns. Leev accompanied by sound of loud, rather long, LEV's.メニュー

Have seen several Trumpeting Calls, but not close enough or frequently enough to be able to describe in detail. Only some aspects are obvious. HD is about vertical, head pointed straight down, not too stretched. 3rd phase of rather like Herring Gull. Angle: the bill is quite low, straight. Neck not very stretched. No-rings of

All in all, this species seems surprisingly like the Herring Gull and unlike the Ring-bill.

V-HF - HD - C before attack - V after attack - V before attack - V after attack - V before attack - V after attack. V. V.

MC V-HF. MC V-HF. HD - C. V - HD - C. V by &

Correction: Carpal points held way out during HD: Held out very little during the preceding.

All the Trumpeting Call performances I have seen so far have had only two phases: HD - C.

Lot of notes during C.
Chucking looked just like one type of gull, gull ch. No squawking

A LC after uttered in our notes like "long rains", but only 2013 syllables like Hydrornis. SE while performance is rather like modestus.

A white bar at rear of wings conspicuous when wings folded. But very little white tip ping of scapulars. Only rear scapulars have tips not visible at all.

LCN's on ground accompanied by int. mews of HD.

General Notes about lands around La Punilla

A small number of belcheri. Rather active. Presently nesting nearby.

Lots of pipiriria. Almost all just rest almost all imm. Very inactive.

A lot of modestus. Almost all just rest or imm.

Very inactive.

A few leucophalus. Adult, non-nupt. Very inactive.
November 2, 1955
Olea, Peru
the Ballesta Is.

Uruca.

Zosternidae uruca. Silent gaunics they as birds presumably calm down a little, still flying in tight flock; a hoarse "runtly." Twittering sound "ka ka ka ka..." Fowl of life?

Also a longer note, more homely quality. Might be transcribed as "Waah," is it?

Ballestas Islands
Querous. Vast variety of postures & movements.

1. Chattering. A high phase & a low. Frequently repeated, seems to be larger, directed toward companions.

High phase varies from; something like a stretch to something like an upright.

Bow phase is very rapid, stuttering, much shorter than high phase. Beak at bottom of bow looks rattie like Goethalsitering.

Accompanied by the rapid, chattering call mentioned above, given in air.

I think that call continues, during bow, but it is so rapid difficult to tell
Trend might better be transcribed as "Kah, leh, leh, leh...," but no rapid almost aattle. Very reminiscent of BKK (in sound similar in flying birds). Bill opened & licked & closed very rapidly.

Leads much like high phase of chattering. Not quite vertical.

3. LCN. In more or less V posture. "Kah, note. Bill
opened quite widely and then closed. Often directed toward me.

4. "F". Same as. Looks quite like F. With a soft whining
note. Perhaps just a variant.

5. Clap V. Quite clean. Short sudden

6. Close something much like C posture or sustained lower
chirp from.

7. Something of an aerial stretch with glide

8. Peculiar H or F posture

Might even be S FB. Accompanied by
slightly up-and-down head motion.
Response of mate was
chattering performance with high & low.

No sign of T.
More about Lanternna inc.

The peculiar bunch with ruffle (H+R) is a form of FB. apparently, law a go do it to a obs. for several seconds, eventually inclining to the moon.

The head movement, especially when there is only one isolated low-intensity movement, is quite reminiscent of short distance HB, i.e. head-bobbing in the B & G.

This sequence was apparently preceded by several minutes by the presentation of a fruit. Unfortunately, I did not see the intervening patterns.

The usual NC appears to be mutual chattering (Chat) with both (I) and low phases (—). This may be followed by some sort of V+HF, but I am not sure about that.

Chat is perhaps less explosive than LCN. It is my impression that LCN is particularly liable to precede attack. A flying bird charging me is apt to give LCN. Aerial attack call is perhaps a version of the LCN. Perhaps particularly loud, harsh, rattling, with sort of a "tak" in it at the climax of the change.

Ordinary LCN might better be transcribed as "tak-h" (Betterment a.)

Watching birds on a communal area, green, showing some activity.
Some shot from "F". "F" looks rather like low-intensity. F seems to occur when bird goes, lines cleft to another bird some distance (2-3 ft) away and slightly below.

Many silent Jaegers.

Two birds just standing on rocks, fledged ful, long tails, multi-colored bill. They apparently flight from time to time, usually returning to much the same spot, sort of skimming, with only occasional hectivity from neighbors.

Population attempt. Again immediately preceded by g. with R. The slight head movements definitely accompanied by opening and closing of bill. Could not hear normal. Then 2, who has been standing in V. (Long neck, horizontal tail, not very "agitated"). with queer, queet, stalling and E.B. in counter, stands & Labour like a gull, carrying his breast, etc. Then I attacked by neighbor general pandemonium & stands in "ag" V.

Some comments on LCN & related patterns. Often accompanied by incomplete or complete raising of wings. This is obvious from out more of spinning, and the heads do a lot of it when disturbed." Birds also glided in LCN picture, with or without current lifting, but apparently silent. They appear to be a sort of Gape pattern, (G), and may well be a low-intensity version of the LCN pattern.

Explanatory note. I put up blued yesterday afternoon in a spot when there had been many terns the day before. But yesterday there were no birds! Then, this morning 2:00 a.m., there were lots of birds on rocks 150-200 yards away from blued. Now 4:35, they are making occasional flights out of blued.
occa, Nov. 10, 1955

areas landing with much LCN, etc. at place where they were day before yesterday. They all seem immediately in felt panic to this process of colony occupation? Or just reaction to presence of blight?

All gone now - 6:14 p.m.

This LCN might may have a form of “rattle” or “ticking” undertone, but slight, certainly much less conspicuous than in stobolsis.

The land not back yet 8:00 a.m. but I don’t think that the blight is wholly to blame. At least I see, in the far distance, groups of blight moving rapidly from the rocks to another potential breeding place. Can still detect the back, with lattice work, opening at the tops where they only remain for a second before returning to the rocks.

Leaving blight to go watch communal area on rocks.

What often looks like forward, also often looks like forward, stretch.

sort of business

6:10 4th 5th Agg V. LCN - LCN - LCN - LCN - F. Oct. 8th - 4th - 6th -

M.C. - Agg V. & more outside Agg V. - HE. Agg V. - HE. Agg V.

Cop attempt didn’t look promising. Like all the attempt so far was the blackened, then just sat for a long while finally copulated twice. Part cop display mutual - 7 - aux. V. & then flew away.
G is never wide, apparently. Tongue & much of inside of mouth are yellow, but this does not appear to be emphasized in G-

M.C. 2 Agg V + HF - Gost V - preening & Agg V - Gost V - Gost V - preening  (8:15)

M.C. 2 Agg V + HF, Agg V + HF + what looks like LCN, but can't hear sound & unmakable most of time.

This HF is less vigorous, sharp, sligher than a slightly slower "shoving the back or the side of the breast." In any case, it does appear to "move" the bill.

When relaxed, head is perfectly round.

Have now seen aerial st. with glides with unusually rapid, almost vibrating, wing beats of small amplitude; and with normal wing beats (during silent Panic).

Anv. V in this species is essentially same as pre-flying posture.

Gost v, perhaps the same thing as . I think that they are tending for call to cease during . But this probably varies.
Aerial ft. posture

Queen once in liquid escaping from another that had stung it tail in mid-air.

Aerial ft. quirky by liquid after being chased by another when the original pursuer flew ahead over head. Then bill opened still in it an LCN movie uttered!! I think the truck separation after this. The truck who died from an landed, grew head ft. eventually continuation of aerial ft. it had murdered after LCN. Then allowed.

communal:
---

Gost = Gost = Gost = Gost. (this appears to be low intense form)
---

1 = chat performance. Silent. Bird comes up into spilled water between gos to. but bill unpointed slightly upward. (during this spilled posture) Gost = Ft. Gost = Ft. 9:15

---

1 = chat performance appears to be the usual display toward
guest broken by a bent on the ground. at least quite common.
sometimes chat with Fantail, I think.

Bird circles in "revolute." Flight (call it Moth flight) after aerial flight about 1 minute then begins to fly nom-
---

ally with back. No trace of ft. during this Moth flight.

 Went back to Linear. Visted a couple of times but lands gone most of the time. Back to communal areas.
10:05 a.m.
---

communal ---
---

LCN LCN Gost -- Gost 06-17 Gost 06-17 Linear Linear --- LCN LCN Gost = Ft.
Two birds flying in circles in Scotti Flight. Perhaps did not understand me. Tame of it occasionally by one or both. (I think straight in following wind). Change to medium LCN's when one near. Back to select Scotti Flight for fewer more circles, then separate land.

Body black proportions in normal flight since variation in final twist of mustache. Kind may blow it upward.

The usual posture accompanying aerial chat a LCN is certain not a ft. More or less normal flying LCN posture. Perhaps a lowering of neck to be stretched upward a head downward during LCN.

Have seen again that chat performance usual "mod. int." M.C. brethren birds that appear to be quiet (i.e. line up and stay side by side for long periods of time, without disputing) and then turn to face one another and give repeated chat performance divorce.
IMA, Nov. 10, 1955.

climber with 3 red bands. Can begin with either 1 or 3, tends
to decrease into gort at top, then perhaps gong 1. Then going

There appears to be a strong tendency of clans to return
chit performance toward our question. Often reminiscent of up-
ward-downward ch of Kittimaka.

Leaving 10:35.

1:35 P.M. Now have blind on better place. Near a
colony of nests (white eggs) and also near a communal area.
Birds coming back in distance, but rather shy.

I think that I am looking at an outlying part of the

colony now.

Birds indicate all over during chit. Much like ch of
Franklin's gull.

↑ FB from 0. Not much contrast. On picture wings not
dropped, just capal points out. Stands in egg V, mounts,
slips off, stands in egg V.


Another sep attempt. Again unsuccessful. FB in H with 1 in
egg V. 0 mounts, slips off, stands in egg V. - "got -
egg V."

St. after attack. Apparently territorial defense.
Vica, Nov 10, 1953, VII.

Extreme age V.

Nudge in neck a great about where the light grey stops.

Much less aggressive (also occasionally shown as pre-flight posture)

Head sometimes more rounded.

Flight on ground: then one land escape, several feet after.

in moth flight: circles, lands. Makes little circular moth flight.

Lands. Disappears.

"Forward" with bill.

Sometimes almost exactly like the F of the B.A.G.

Semi F posture.
One bird lands on rock in distance. Fish in water, changing shades in semi-dark longtime.

Then another bird lands, very near, does 1 - gart - V + H F

Gart - V - pr - V - pr - V allar

The bird with fish makes some response to 1 - performance, as for low-intensity L - stuff. Then quit into seeing the latter bird (Too far away to hear sounds. Bird with fish may have been calling cautiously for all I know). Other bird flies away. Bird with fish just sits. Eventually flies away too, in silent ritualized flight.

Silent G - in flight. They pronounced by bird that had been doing it on ground.

Just heard a very loud "howling" version of chat.

Don't know in what connection. Flight quiet during hence.

I recall variation of "attack" LCN / a / aaah / une "like"

Also higher-pitched, "purr" more plaintive version.

Chat performance often followed by semi - V. Have once seen chat from definite case. This must be relatively rare, however.

V's definite appears to be "low-intensity" for in fact do all the silent patterns.

LCN on ground accompanied by definite, rapid half-way raising of wings. Reported during extra-specific dispute. Bird not frightened by me.
Definite shift toward flying with feet in water. Then noticed that pilot's notes of chit may be slower than later on, and that their slow notes are much more like LCN notes in quality. (Adding these incidents to account on p. 77.)

Just saw transfer of fish from one bird to another. Extended light performance that I didn't catch, followed by silent gas. (The others.)

Bud with fish. Fish on semi-H, fish hanging. Then another bank levels. Buds facing one another. Flowering (looks larger than usual with fish) immediately begins chit. Becoming with- -1--1--1--1--1--1--1--1--1--1 (with much DCB). Bud with fish does something similar, -1--0--1--0 (Could not hear to call out. Felt tail vibrated as during chit. Then bud with fish, flies away on circular flight. Other bird flies off. Other bird back. Bud with fish back. Again mutual cleaner, exactly like before. Other bird does -1--1--1--1 (V + HF x DCB). Bud with fish does -1--0--1--0 (V + HF + DCB). Bud with fish does -1--1--1--1--1--1 (V + HF) x DCB. Bud that had fish flies off. Doesn't return for several minutes.}

Low intensity, 64
mon., Nov. 10, 1955

Tentorial lizard on H & R + HB toward another lizard, a few feet away with tail. They start to attack second. Then egg U + HF + slight - egg U after attack.

None of the H's with R I have seen today have been with small looping wings. Perhaps a female mouse, pre-cop. The lizards I have seen have just had their wings held out as usual threat.

Ring of brown flesh around arms of Q at least is bright yellow.

At Q after attack during territorial defense & may continue.

Another copulation attempt. thinly, saw well Q begins, by going into H & R + HB. Bill opens & closed slightly during this performance, usually opening or down flaps. An egg U, perhaps once or twice OB, is usually in some H & R + HB. Q stands more or less stationary, just turning its face in face of Q appears to be getting practice. Small circle. Backward lurch of H attacks that H turns head from side to side, over shoulder, as if caring for Q's breast as during copulation. Small wounding Q remains in H. Still turning head from side to side. (Note about Q's posture. The carps close out, but wings not dropped. Wings separated a little, tail raised between them when mounted. This time throughout copulation. Q puts itself. Small copulates twice. Q continues head turning before Q between. Q slides off. Q does egg U + HF - ag v - makes small to mouth Q releases H & R + HB for second, then releases & peeks.

Q's bill feathers very ruffled after mounting. Also breast feathers to some extent.

Have again been watching persistent H + R + HB by Q. Circling round & round & chasing Q. Her posture is really remark-
November 10, 1955

All, like F or B & G. Managed to hear several accompanying HBs, an extremely soft "whoop," repeated with each down beat. Chicks

measured 1/2 inch, the g. turned to face it, continued H + R + HB

but sound became intermediate between normal HB sound &

LCN. The high plaintive LCN I mentioned earlier. Noticed that

g. abdomen feathers also ruffled during H+ R + HB. Wings not

dropped.

Normal ft. response to g. was very V. constant. Occasional

near-HP movements.

G. responded to intrusion by F + chit. Once went down

into H + R of R. Then returned F + chit.

Noticed that when g. was running away from g., when

he was in egg V., his necklase were slightly raised, as a

trait, but no sign of R. 4:05

Normal ft. when not a "silent - or LCN" is rather

short-necked. Like a V. posture superimposed on an F

This whole chit performance is remarkably like both the Glick of
Franklin's gull & the Ch. of the Kittiwake. Call itself is probably

strictly homologous with Glick of Franklin's.

Birds never do ft. and nothing else, when landing

among their fellows in a communal area. They began to preen

immediately.

Long continued a sustained G or LCN type of posture.

Wings raised each time as bill opens. Looks, in fact, just like

extreme LCN, but entirely silent, or call at least as weak as

HB call. This pattern can't be too low-intensity, although

presumably weaker than LCN itself.
Nov. 10, 1955

You've been watching a P-R again. Top of head & back are slightly ruffled, but this is slight enough, and the features are short enough to render this inconspicuous. Real conspicuous R. legs w/ scapulars, chin smooth.

Line is like this:

Find points of wings II, Lighter colored moderately conspicuous when riding are raised during LCN's.

V-G by vein after retreat, after being attacked.

Don't mention that ft. some reveal yellow between the scales of bite lower mandible.

This is sometimes new conspicuous. Robb & all an important reposition.

V-Got after attack during territorial defense.

A does quick nervous but complete pruning apparently as a response to soliciting.

V-G after attack during territorial defense.

Bursts of LCN by neighbors & dupicants during vigorous territorial disputes. Also often hostile patterns. Have not been able to see circumstances of these LCN's at all clearly.

There again seen several kinds, print "marking" on rocks, with fish slathering from rocks, most peculiar. Can't be pure digestive process, as they often remain很长. Appearance frozen.
Flocking incident. Both presumably female beside another, presumably male, with fish. Just stands for a moment in usual fish-carrying posture (which we will call "Fish-Oblique", F0).

"F" starts chit from F. An instant after, slight change of R. "F" goes down into F also, very little, and probably silent. Then "F" flies to another "F" presumably her mate. This "F" and the other "F" then go through a mutual chit-witte-rite performance, followed by mutual 

Thus it is "F" and the second "F" above like mates. The fish-carrying "F" meanwhile flies to another bird, presumed to be her mate, and sits in front of her with fish. She goes down into H+F and beaks HB. "F" just sits, finally hands one fish. Then, as second "F" begins to swallow fish, a fifth bird attempts to steal it, and general pandemonium ensues. General fight all 3/5 5:45

Does this incident suggest that pair-formation consists of "F"'s flying from place to place, resting every now and then on "F", and trying to get "F"'s permission to accept fish? Perhaps suggestive of something, anyhow.

Leaving 5:45
Blind same place as yesterday afternoon. Enters at 7:17 a.m. Day clear. Full cool here in shadow of cliffs. Birds still a little shy.

Note about "real" St. Have seen it again and again by birds landing near, but not too near others. Much more vertical than most of the stretches which appear to be "silent" calls. Perhaps body more horizontal and neck a little shorter also.

!! "Real" St. Not come — entered at all.
Vina, Nov 11, 1955

Bird print flown by in extreme S. At first a trace of short flight, wing beats very rapidly, out of remarkably small amplitude (no more than 2 ft. Extent). Then glides while continuing in extreme S. This S. definitely silent. Bird soon disappears from view around a rock.


gost gost gost gost

Gost gost gost gost gost gost gost

MC 8:00 AM

Wing feathers also ruffled during H+R+H+B. Great conspicuous at times.


Extreme E. Notice that neck is sometimes quilled swollen, which means that fish must be partly swallowed. Occas. regurg. movements.

Sometimes head a little lower momentarily. Then perhaps reminiscent of M posture or posture of some gulls.
Interesting incident. Apparent 2+ 2, some futility, approaches apparent 2+ 2, & attacks by F+CH. - Agg V - F+CH, Agg V. cook stands in part, varying from short - H to complete F. When in attack extreme F, a nail of R. finally flies away a few feet. Then slave does not follow him. Stands in F for a while, small silhouettes fed, V+G. cee cee stand V. Then involved in some attack with another bird, call & follow it. Both fly off. 9: remains. relieved. sewing. Fig. 8: eastern. Looks much like an amorous cock. We advance to an already mated 2.

F+CH 2 Agg V. 2 Agg V. 2 Agg V. 2 Agg V. 2 Agg V.
Agg V. 2 Agg V. before attack. Agg V. 2 Agg V. Agg V.

Apparent nest site selection ceremony. II. Agg V. land. M. C. quits mantis, Agg V. 2 Agg V. 2 Agg V. go from potential nest site to potential nest site. V+G. crosses and follows under rock. Each place, she looks down expectant. (Like a series of farts) 2 Agg V. does same thing. Bubble oriented some Q. Then 9:30 on bug (without turning). Then 9:30 on bug (without turning) then 2 Agg V. 2 Agg V. 2 Agg V. Then whole performance repeated. Few minutes earlier in Agg G. before bug disappeared around Boulder. 9:40

F+G before retreat Agg V. Agg V. before retreat. V. 2 Agg V. before retreat. V. 2 Agg V. before retreat. V. 2 Agg V. before retreat. V. 2 Agg V. before retreat. V. 2 Agg V. before retreat. V. 2 Agg V. before retreat. V.
2 Agg V. before retreat. V. 2 Agg V. before retreat. V. 2 Agg V. before retreat. V. 2 Agg V. before retreat. V.

There is always a great burst of LCN's bug stock returning from a silent panic. 8:50.
During the front of mutual displays, continued by an
intended and solicited upon mate; it is noticeable that males
tend to do the same thing, but are only synchronous portion of the

time. 9:05.

Watching another copulation. Much as yester 

day & HB in
H+R, with much head turning. Q in Agg V - Agg U
Agg V - Agg U. Again slow. Notice that Q is yellow winged
close is constantly opening & closing during her soliciting
(They may be visible to the eye in some circumstances as the
whole red end of her body is tilted & raised.)Again she
didn't drop her wings until m mounted. Q copulated

twice. Then stood off for display by Q. Agg V - H+V by
Q. 9:17

There is almost certain no copulation call in this species

Almost certain no Alarm Call.

Almost certain no Sounding Call.

Watching next site selection going on. Perhaps same pair
as earlier, but in a different area. Behavior just as described
above.

Have twice seen one of the birds in Silent Pounce by Q in
Mass Flight & aerial fl. Unfortunately didn't see what
provided the pounce
Bud flies in aerial flight with moth flight grade after breakup of aerial flight. This bud was aggressive during flight.

Comm. area


V. V. A. V. V. A. V. F. + G. before attack. Bud. after attack. Bud. Bud. LCN.

LCN before attack - LCN after attack. Bud. after attack by immature. Agg. V. by immature.

V. V. A. V. V. A. V. F. + G. before attack. Bud. after attack. Bud. Bud. LCN.

Notice on retreating performance (included in count above).

The clutch of performance as shown briefly toward evening already may be even more gratifying than other clutch's. But, at least, it appears to be so in the case of one bird near the house, 10:30.

The appearance of this species in somewhat peculiar. When it does fight, it fights hard & long, but it is my definite impression that attitude & fight are relatively weak (as compared with such species as the B.O., Honible's, or the Roy-bell).

Have noticed one thing about the R.C.s in this commercial area. They seem to be very efficient as threat. Almost always being about retreat by opponent.

R.S. can vary from mere to almost complete mandible 1/2. This helps to explain some of the S-performance.

M.C. uncommon & 10 days. Agg V + F + H = G F + C. Agg V - F + C + H - C. U does V - F - T. T.
Nov. 11, 1955, VIII

11:25  —  —  —  —  ft  Got  St  Got  —  St

Some, at least, of the mutual 0 performances by mates are apparently not provoked by intrusions of third birds, but seem to start off in vain.

A peculiar incident: Apparently connected with pairing. One bird (♂♂) hands stuff to another (♀♀) ♀♀ in semi F F also ♀♀. Possibly some chick in their semi F F. Then ♀♀ runs around with food half swallowed, pretending-longingly from bell as usual. In F0 posture. Occasionally gores ♀♀, or she repels her then ♀♀ does chick performances, mostly from F0 and ♀♀ little ♀♀ then sometimes does same thing, more or less. Occasionally, when can’t tell whether sound of nut (food-carrying) and always seems much hampered by it. Better to always ready to display progress. Then ♀♀ makes repeated (at least 3) circular flights. Quite uninterested. Key: bird comes back to 2 different sites, in same general area, but separated by many bricks and timbers of other birds. Sometimes

lands and somebody pays some attention. ♀♀ just sits on more order F0. Sometimes threatened (aggressive) by nearby bird. Then ♀♀ retreats. 1 more often there is some display, mutual with a nearby bird, ♀♀ in F0 occasionally ♀♀ at other. Occasional ♀♀ at Got. One of these birds, and ♀♀ potential nest-sites may constantly be accompanied by trash of scraping. The ♀♀ display generally with ♀♀ which may or may not be the original ♀♀ each time does more usual display. Essentials in attainment of cage ♀♀ and chick pattern, smooth ♀♀ and F. Occasionally ♀♀ perhaps an 1 or two days out confused after this, as then an upset, nervous silent James throughout the colony that the ♀♀ is backing with fish at least twice before I lose her again 12:23

To back again... again. To the same three sites, some times a few others. Generally approached usual lively. Cross a couple times, which may be significant...
Circular flights in between. Most of the time, it would breeze off one particular bird. Perhaps original "Q" and keep as before. I.E. "B" occasionally in E. "C" occasionally in c. Much more about not ever having used circular flights or games, but also because "Q" much thinner than other neighbors. Finally, on last return from a circular flight, "Q" swallowed fish. Then she and "C" had much parading around in area E, V, V+HF, etc. "Q" goes to a next site every 3 cycles briefly.

I have no idea really which we was which in this lengthy and dull imbroglio. 12:50

Leaving 12:55

Back 3:12 p.m. Birds come back fairly quickly.

Both birds to V+HF.

Flying picture of bird carrying fish in incident almost vertical above.

Most flight by both birds, after one attacks another on the ground. 70 ft.

Extreme North Flight. Bird circles with body almost as vertical as head & bill after some sort of dispute on ground.
Viera, Nov. 11, 1985

X-Ray

Comm. Area

4:02: Remarkably un-hostile here now. St.-Goat, St.-Goat, St.-Goat.

F+Clot F+Clot F+Clot F+Clot F+Clot H+R II

1CN-1CN-1CN-1CN-1CN-Goat - O+G-Goat - F+G-Goat - F+G-Goat

Notice that in the case of preening burads, the carriage don't stand out very much. Does this mean that they are erect in display? Carriage on actually a retract.

- attached to head, except for tip.

Now I'm not really sure there are two kinds of it. The "silent calls" are usually quite O.

"F" varies considerably.

I noted G. usually characterized by full open eye slightly. One of the things that make it look like low extinction. Sometimes, however, full open eye wide. Thus, I think the long ones apt to be visible, something which we use as moratorium on referring with real 1CN.
There are several other tactics which may be employed to frustrate the motivation, but which I am not counting. Among these are: C&B, head-shaking and preening.

Speaking of preening, incidentally, although I have plenty of "normal" preening, I have seen nothing that looks "ceremonial." The preening following C's is usually relaxed.

Wings during flight, slanted, especially when body is slightly tilted (as it often is—slightly) are unusual or always apparent. "Held above the head" (slightly off) the main form of slantwise aerial. I think that this is true even at the bottom of the descent. 4:38.

These birds certainly have far more silent Poaches than any other Caroliac species I have ever studied at a comparable stage of the breeding cycle (i.e., May with eggs).

Let\'s say: LCN before attack, ST + G between attacks, ST + G between attacks. (This is just one incident I witnessed. Look much less than a minute.)

Apparent low, retained, low position — LCN by immature before attacking.


escape. Gst, Gst. 

LCN = LCN = LCN = LCN = LCN = LCN = LCN = LCN = LCN = LCN

Yes! The ear-wings are certainly erected during some display postures at least. The V\'s. Probably all the ground threat postures.

The miniature birds are certainly more aggressive in the communal areas than the adults. I tend to think it does relatively
The formula for calculating the current in an electrical circuit is known as Ohm's Law:

\[ V = I \times R \]

where:
- \( V \) is the voltage
- \( I \) is the current
- \( R \) is the resistance

This formula is fundamental in understanding and calculating electrical circuits.

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In the context of the circuit analysis, the voltage drop across each component must be considered. For example, in a series circuit, the total voltage is the sum of the voltage drops across each component.

In a parallel circuit, the current through each component is the same, but the voltage across each component can vary.

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The sketch in the corner of the page seems to represent a simple circuit diagram, possibly illustrating Ohm's Law or a similar concept.
Culca, Nov. 11, 1955, XII

Comm. Area

As birds are leaving after a sudden panic, the call lands on the
ground and heads toward flying birds in LCN. Very noticeably.

Comm. Area


End 6:05

Some variants of LCN note by flying birds might be trans-
cribed as "Kee-ee-ee-

Real extremely short - vertical call points of strongly upward
F in the introduction to H + R

Shape of tail whether spread or closed during moth flight
with it is apparently dependent upon aerodynamics. Either one

Leaving 6:05

Culca

Saturday,

Nov. 12, 1955.

Churcha fun

7:40 a.m. have moved our blind to center of colony
Don't know how the birds will take it, but they come back
quickly.

Richard: matt

Post-cop display by 97, 95 if doesn't do anything
Extensive Aus. V. posture
(followed by Gost.)

Str. It. Gt. Fight

X discount last 2 LCN's

It is found alumina that the most extreme Agg V's perhaps the only extreme Agg V's. are performed during M. & St. including my next release.

Tranet & should be transcribed as "cr-ah." very soft or pleasant.

Agg. V's are sometimes accompanied by a sort of "Twisted neck, sort of an indentation of HP"
Very long, lean, looks like a duck, flies on aerial ft. with flapping flight.

Moths' flight seems to be common in flights after flight on ground.

Beak standing in semi-V, semi-Gest position,utter peculiar muffled sounds like muffled, long-drawn syllables.

What are they?

O MC

Fl. Gest ft. & F - D - H !

redin-watt

F + Ft. F + Ft.
F + Ft. F + Ft. F + Ft. Ft. 

Front line of two flying in North flight + ft. attached by second.

One ft in North Flight + C !

Stg. HF.

When there is a slight gliding down of fl., syllables, each syllable sounds almost like 'Barmump.'

These insects much less "wise" fall to this fl. than to the click of Franklin's w. Sound waves wave primarily in correlation with meteorological phenomena (i.e., in most cases, with the awareness of the opponent). Call certain continues full blast during high winds.
vicu, Nov. 12, 1985, IV

as more muffled, but still so loud, in transcription of rapid high-intensity syllables as "ch, ch, ch, ch..." is about as good an approximation as is possible.

have seen premated male screeching while premated female locked on 9:12.

redr. matrix:

F + HB - F + HB - F + HB ** (definite indication of the sexual element in some of their redirected performances)

[Handwritten code]

organism notice LCN by hicks after landing after silent phase. Not including them in counts, because I'm not sure of the stimulus producing that.

Period 8 p.m. again 9:30.

Mutual parading of in Auv. V & St + HF, & ni. Agg. V.

[Handwritten code]

Ending 10:30.

The usual haute is certainly very slight.

[scribbles and smudges]
Nov. 12, 1955

One thing about reorientation upon mat during performance. Not only do the mats turn to face another, they usually turn to face even the next cavity?

9:55

Feeding: 18:33

Fr. after attack?

Fr. after escape?

Fr. after attack?

Again, flight with Fr. by attacker, after attack.

Louder, Fr. is more colo and metallic. Probably higher pitched than other variants. Obviously high intensity.

Have seen many attacks presented by no display. This may explain some peculiar features of my figures.

Again, burst of LCN’s from nearby cavities when I can hear legend running over my head. Again. 10:35

Again, some pairing behavior. Much as before, but seen much nearer and in much greater detail.

(Quite large, almost one of his size), stands with feet cannibal half-down, heretofore, tail protruding, longitudinally.

Just stands, looking half-stuffed. Another bird approaches him. He attacks it. Flies off on little circular flight, apparently quite uninterested, then back. This alternation of little circular flights and periods on ground goes on for a long time.

Apparent directed toward legend.

One thing about reorientation upon mat, during performance. Not only do the mats turn to face another, they usually turn to face even the next cavity.
Each time when the 4 comes back, he comes back to same small area and spends much of the time sitting half-stapled or PO. But also does other things - sometimes hunt food with neighbors or close F + chit then balancing saw their disputes. A couple of times F appeared by another bird. At first site or does F + chit then advances toward other bird (who has not displayed, just in those semi-air, low, anything) and other bird files off sometimes 4 chases other bird, before returning. Other bird was probably different at different times. Sometimes 4 suddenly flying, charges bird at some distance away, and then goes on circular flight, returns. 4 flew numerous circuits, flitting as if partially hostile but they are certainly not usually. Sometimes 4 approaches another bird particularly a neighboring, selecting area water 2 minutes or less, F goes all times of day. In response, sometimes F goes down into what is observing a potential next-site. Did this at least 4 or 5 times. Sometimes brief chat occurs. Due to the topography of the ground, he was always in F or semi-F when entering. Sometimes stayed several minutes. Once definitely scraped all this, repeated, alternated with period of just sitting, occasional walking about, circular flights (and joining in numerous silent flocks as well)

This certainly appears to be the invitation in gaining but does the bird do the response occur?


Leaving 11:00 a.m.

Back 1:45 p.m. Have to get in blind by myself. Does not seem to frighten the birds too much.
Nov, 12, 1955

Toward bird on other part, predator.

\[ Agg. V \times H + R + HB \]

Fights much like B.l.g. Aerial preserve. Often much tumbling about with interlocking tails or one bird holding on to wing or neck or tail of other. When all this is going on "stationery" Tugs of war only occur for more than a second when they are vertically tugged and tumbling about in the dust.

There is a definite intermediate between Agg. V and Gort. Seems to be very aggressive. Have seen it several times before attack. I classified as Agg. V because it was nearer than anything else.

Note about Agg. V. This is the one posture I have noticed so far in which any one really drooped.

Seen another bird standing at entrance of nest site. With fish in Fishtail. Just stands for a long time, I look away, and when I look back it is swallowing the fish.
Notice that bird has been sitting gracefully all afternoon in spot where bird with fish (A) was active in morning. Hop it is showing no interest in other birds.

Those forty fowlies. Probably mixed up as pairs already united. One bird with fish, in E. Other bird in H & R (cf. 2). 2 hands over each, at 2, latter allows it to escape it & out of H & R into reeds. Next BD. Then interruption as if "goes to threaten night" or with E then both birds fly off. Bird carrying bird left.

What way possibly gun shot as all is sound like a guns, unsounded version of chitter, more than 3 syllables usually.
Nov 12, 1955

Longest napkin "at night time." Some birds gave this as they fly off as the beginning of a short frame.

Actually, one might as well translate full chat as "I ate cake to take the time," as well as anything.

Before I forget, I am not sure that during these full episodes, the level carrying fish in FC or F doesn't utter "speak" notes like this. Can't really tell who's doing what...

After before attack: Do after attack: Am. V. Do: Got.
After after attack: Got. After again: Am. V. before
circle: Do after attack: Got. After again: Am. V. after
attacks.

Note: during the tone, cell sections are momentarily rebuilt and go in out rhythmically, but yellow ring around adio, not until 3:40.


Our level of gas, presumably F. HB in H+R. Or in return.
And F. with slight time of FB. Then up begins gas. "This
is the main thing to "mutual FB" that I have seen — I
think.

I think that I can produce burst of LUNI from neighbors if I make a sudden move or try a sudden movement in the church.
This is contagious. If one bird does it, others soon follow.

But performances are also contagious, but the silent
performances (e.g. St.) seem to be almost absolutely non-contagious.

After flight on ground, both birds fly off in North. Right with
it. Continues quite awhile but then both relax and I lose them from
sight.
May, Nov. 12, 1955.

I have seen another case of abducting with both wings dropped. Several cases with one wing dropped at 4:00.

![Bird illustration]

Obviously much can be learned from this posture with wings tips curved over tail.

A book several times with fish seems nervous. On fourth return with a nutrient has obviously swallowed fish. Stands off again. (Buoyed silent, tiptoeing in colony.)

This might conceivably be a battle. 4:40. I see another bird more or less associated. Both birds also way off, parade around, some distance apart, in Ag-V. (Eriging and short occasion all), and perform mutual chit performances toward neighbors. All this much interrupted by silent pauses.

Again, they go back. They are prone. (Prev time it was still A). Mutual chit performance hummm, start to piece.

After attack, after attack. Go! - Go! after attack.

After attack, Ag-V + G-V + G-V after. On Ag-V, before attack. After attack. Go! before attack. After attack again, Ag-V.

Sustained it on special sometimes accompanied by slight side-to-side head-turning (CHT). Looks like "newswender," like gull in alert posture. Stays also noted H-T in aerial. St. same.

Again. Again. Have seen evening of flight 24 after Coos, and then turn, making smaller flight, in flight 3. St.
Maca, Nov. 12, 1955, XI

Common "mewmew" flight posture of our colony. Bill pointed slightly downward.

There are lots of populations going on in the colony, so the colony as a whole cannot be too far advanced. . . .

Confirm bow-wave real flight as

The only real long flight occurs when our bird gets a hold on the other's neck and won't let go. I have seen this several times. Once the lower being drowned, couldn't take off from the water for minutes.

This might make a nice drawing. Probably from above.

I think the birds are silent during these long mantarol

fight, part of the time at least.

When a fight continues like this for minutes, other

birds will circle around swooping, etc., just like B. G. S.

I don't know what call they make.

your mate
Nov 12, 1955, 8:14

Confirmation lots of attacks from no-utilized post war
During universal defense, almost always a trace of play by at least a momentary weak ST after attack.

Also confirm one of the best signs of ours is when two birds parade around us. Both usually in dog V. With repeated HF.

**defuse**

I think that aerial attacks (flying up to attack another bird) sometimes accompanied by "attack LCN" like LCN used to charge at me. Always happens so fast, I wonder that I can't hear sure. A brief swaying "a-ahar" or "ti-ahar".

Leaving 6:25.

Sunday, November 14th, 1955

Audra Bland 7:10 Have to get up by myself

Anne Bland 7:10 Have to get in bug myself

Notice one thing about Silent Parries, some back in it. Particularly I think, those that start the parry, fly in an erratic flight, spectacular downward twisting plunges, from the top of the cliff to near-level, sometimes, twisting or turning, etc.
There is certainly something like a "Butterfly Flight" movement in flight. Quite like buccaneer flight of some gulls. I doubt if it is studied, however, and I am not sure of its circumstances.

Ordinarily position of wings during territorial performances.

Wings appear to be 1/2 to 1" longer than tail.

In defense: St + HF - goat, St + G after attack. LN. V + G (there are produced by a heavy flight clattering through his territory) V + G before escape, escape in North, St + G. V + G before attack. St + V (followed week by North Flight at St). St + Gafter - before attack, St after being attacked - St after escape.
Metri Flight is usually I think with tail closed

One type of posture. Bird perched on rock with plenty of room looks much like some forms of cocking

MC 7-16-55 1-6-55 1-6-55 1-6-55 4-6-55

Watching again. I think A must have been slightly passed yesterday morning, even though not present. Certainly passed yesterday afternoon. Same & recognizable because of sneer on fowl's back. Most of the morning also passed by.

F on ground. F back with bits of food in bill. F in "F". F also in "F". A little bit of F. Perhaps a little also F. Takes food. Then both join in a mutual, mutual clutch performance with no hands. More vigorous than F. Gradually dispute rabbit's walks away in Agg V. F flies away 8:30.

This F, in which food is present, incidentally, is much like the food-presentation posture of A. Xaugling goes described by New.

A pair again. F on ground. F back with food. F in Fo-F. F in F. A little of F. Tastes food. F-V-O-U. F flies away again.

F-A of V. F-H-R-HB. Again exactly the same.

A pair F with together after silent game. Both F. F clitch & tastes

food. F-G oot 0-0 0-0 0-0. A little less vigorous than A. I am sure if the first clutch performance was provoked by Xaugling or not.

Another posture of bird carrying food. They also appear unclutch

used, but it suggests that other posture is per-
Vina, Nov. 13, 1955, W

has a low-intensity £. (i.e. the portion)

Fighting ends with bills open, but defending reluctant, seen it twice.

Apparent: 1. From early pairing £ on ground, £ attacks £ above
2. £ attacks £, walks around in £<sup>g</sup> and £ attacks £, walks, to meet hole disappears, not £ does almost nothing but stand, walks around. Small follows £ to meet hole, stands outside, stands, does about five goats from time to time.

Low intensity £.

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Once in # £ will slightly open, raw tongue will. This is certainly not usual.

---

Posture much like £. Same angles. Still—not £ longer-necked „somehow. Is it that the neck is thinner?"
Bud in nest site. Bud-01 may have been 2-3 weeks earlier. Bud-01 constant for Aux-V. Nest site buried along alternating sides of the pond. Bud-01's female attacks bud, then after attack, it returns to site and flies away. Bud-01's female returns to site and flies away, starts to return again, then flies away again.

This is certain part of gaining.

Some attempts to gain that same site after starting to approach another bud near Aux-V., then flies away several times, started to approach another bud near Aux-V., then flies away again, and flies back to same potential next site again.

Again in Aux-V. looking nervous. A pair next to another site, approaches another site, and stands looking at it a long time, in long awaited semi-F or semi-L. Then flies away, to another place, approaches a pair at another potential next site. Again in Aux-V. looking nervous. Pair next to another site. Directed the pair's attention to another place. Looked down from it on the plant. This incident certainly looked significant. The "searcher" was not looking for place to nest or grow. Made one or two "Nervous" preening movements when at its most "nervous".
head quite round, some parts slightly "swollen"

Notes on standing beside & holding fish in F, shown above of my neck, one unit of beak or some F, semi-
off, circular flight, back stands in F & another, small
ballet of fish in semi-F, semi- off, circular flight.
Stood in the same location noon, 10:25, but if so he has
swallowed fish, redirected some feet away, given up after one
attempt to reach female - neighbors threatened in his way
and began to peck.

Both chest in F - go onto nest site to cut their vinew-F, semi - posture.

0G before attack - after attack - go 1CN - 0G 0G.

Note about return from silent drake. Come in with burst of LCN's
stand and burst with burst of LCN's. Then lots of mutual redirected
chant, and then relative place remains in the colony.

HF is sometimes accompanied by a trace of fluting, always
much less extreme than that of the Little gull.
10:00

Again see that "presentation of fish" posture is an F.

Have seen entire "nesting" bunch before. Single bird,
goes from potential nest site to nest site flowers.
Nov. 13, 1955, VIII

One LCN call LCN, flying bird, flying away after being attacked.

The only thing I have ever seen seems approaching a bug-stick aerial, four-legged, black, in the air, 2 pairs of wings, one pair in the air, the other pair down, performing mutual acts of reduction of cloth and...

One population in which I placed down at 9's head...

Once being attacked with an LCN, four-legged, four wings, performing mutual acts of reduction of cloth, turns around and leaves...

Leaving 9:11 p.m.

Step 3:15

Back 2:35, have to get in blind myself.

Once MB multibird opening closing and absolutely no sound and...
Nov. 13, 1955, TX.


Notice that 

3:00


S. stands in F. Approaches C. of adjacent pair. A. in O. & S. and also to other potential next hole. F. & C. into hole. S. stands in F. & C. Then flies off. Backs off. C. goes into 2nd hole. C. in F. Another bird ("B") approaches at side. He in aux. V. C. Sees by "B" 2 lands. Sees C. Aux. V. C. Looks at her in F. C. Then another bird, "B" 2 or "C" again lands in aux. V. C. Hates to approach C. Then flies off. Then begins to happen a little more rapidly. Become difficult to follow. C. starts flying back & forth between his 2nd & 3rd nest holes. "B" 2 flies off. Backs as C. flies back. Both standing in F. & C. When between times, there are at least a small bird in the general neighborhood, who seem to be facing off and "eyeing" him. and C. are standing or walking in aux. V. with less interest. This continues a long time. Finally F. & C. into 1st nest hole. C. attacks one of his "admirers", who has been standing in F. & C. Goes back to third hole. Stands in F. & C. (fish half dropped away.) F. & C. into 3rd hole. Walks around F. & C. into 2nd hole. Stands in F. & C. Visited by "admirers", who stands in low mystery aux. V. C. Sees K. in F. & C. (likely probably attempt at it.) They flew off to attack a cornerstone 2nd hole. C. into 1st hole. Goes to hole. "B" 2 flies off. Another admirer shows up. Also
Starts to approach #1 on foot, in weak Aus. V. #2 attacks latter, who flies off. #2 back to first hole. #4 alt., then approaches nearby cat, who is still from her mate. #5 in E. The response of #2 back to first hole. #4 cat in hole, then alternates between 1st and second hole. #4 cat in both. Meanwhile, the Adieu to, who had not attacked, goes back to 3rd hole, walks around, looks in hole from time to time, in typical fashion. Finally flies off. Two more Adieu's show up at considerable intervals. They might all be the same bird, for all I can tell. One in Aus. V, one in St-Aus-V. Each walks a bit and looks around. Finally although toward them, Adieu's fly off at once. #2 back to 3rd hole. #4 stands in E, goes into hole. Once or twice. Once attacks a nearby bird. Back to 3rd hole. Approaches neighbors in E. Back to 3rd hole. Walks to 1st hole. Back to 3rd hole. (Usually in E while walking.) Stands in E, in O chances during nearby tangle, which probably alarmed him. #4 cat toward a nearby tangle. Just time he hasn't done it in hole. Back to 3rd hole. Stands in E. Walks to 1st hole. #2 flies nearby bird and walks to 1st hole. #4 cat into it. #4 approaches a nearby bird. In E, is attached. Retreats a few feet. Does #4 cat toward attachment. Stands then approaches a nearby bird, who is in H+R. #4 may be the bird that attacked him. #4 cat to H+R 3 steps. #4 goes to first hole. #4 cat into it. #4 cat of a neighbor. Goes to her own hole. #4 walks to second hole. Looks into it. Then her heart, sits down. Stands right beside him. Looks about both and. #4 comes. #3 takes fish unerringly, keeps it in bill. #4 cat of a mutual cat. #4 then #3 walks around in usual "malled." Aus. V. goes to #3 cat and tries to get it. Then argue things become complicated. Much flying around. Other cats panic in color. Anyhow, one #3 flies off in circular flight. With it several times, still with fish in bill. Flies off in usual manner of "treating circular flight." Each time lands come back, unwound. A vain of "greeting." Once no clue, at all. Several times mutual, (Quite low angle), more vigorous on part of #3. He starts preening in quiet intervals. #3 still with fish in bill. Twice approaches him in E, with R. #3 now swallows fish. Both stand facing each other. Then, after both have flown off, #4 gets close, #4 approaches #3. H+R. Closes a minute. #3 looks at her. #4 attacks her. Both lend for Aus. V. (mentioned on part of #3). #3 -0- #4. Then everything quiets down. It is all over for the whole
The begin 3:00, ended 3:50.

Add a few notes about this incident.

This was certainly at least a relatively early stage of pairing.

Curing shows how actual pair formation can occur.

the "admirers" were very remissent in their general "survival", of the "searches". I watched this morning

What I looked back at Margin (col. 1-3) cells were
placid. I do not know, however, that they perform a mutual re-
directed. - o ceremony during despite with neighbors.

Another girl, incident which I did not catch well -- but
a few points are clear. I took in F with silk. HB with R. Polishing reluctant, turns away. Hill off. Back, I may
Indifferent. - of & orange cone. 7 & swallowfish
then both swim backward, then I can see that mutual 0 - 0 performance is proceeding. Patience 0 - 0 by another fish. This time
reluctant. Can follow it well. but dimpling hands over fish.
Mutual 0 - 0 (after swallowfish).

After handling, one fish there is always much swallow-
ing, X, and head taking in V or semi-0.

To sum up - about display between for during
Park pairing phase -- it is V and related patterns (H, F) and
possibly (C) during periods of relatively low activity, and all
performances at moment of "cursus"

Still and all, it's species has nothing like the
compassing rapid & varied sequence of "pairing" display
as used to seeing in gulls, 4:30

Although I haven't been able to make recent counts, it is
my impression that an attacked bird is usually rather in no dis-
ject of making a motion like weak, and V 8-4.
Nov. 13, 1955

Another form almost "s." One form of that looks very much like chokwang 5:00.

Another pair in which it was the following the excavaing again, same pair.

O & G can also be with wings raised & spread.

Have again noted this time definitely that the one sound heard during actual aerial fights is chokwang! And this is not uncommon. Don't know which bird is doing it, but I presume an aggressive one.

... No deal it about it, it is the mutual seductive & performances that are characteristic of long-continued boundary etiquette.

I think that the situation short-necked "Bengal tattling" form of is most characteristic of the intense mutual redirection performances. This may be due to consequence of the limited space available with outcome to the next hole.
I think perhaps I have been drawing the earings too short.

Top of head very flat in O, very shallow.

Notice that muzzle of mouth is not largest, etc. & so on. Relative size of tongue is yellowish, not pinkish 5:45.


One form St. low intensity, neck absolutely straight.

There is no doubt that this genus displays something like a bill toward flying birds. Rather surprising.
Nov. 13, 1955

Deciding to North Flight, without stop.
Deciding to return after attack at Gt. Agg.

Incidentally, before I forget, I should emphasize that I am almost certain now that there is no such thing as a "feeding call" or any similar thing in this species.

Leaving 8'22.

Monday, November 14, 1955

Deciding on "...".

7:13. Have gone back to small "colony", the one in which the adults don't seem to have occupied territories yet, in order to see if they can find anything like a "full flock". Waiting communal area.

When they fly off, roost in flocks, minuer or less distant.

Rame, they still have tendency to meet potential nesting area (collected sheep, mentioned earlier). They only stay a few seconds, and, of course, any blank is now here about today.

Communal area


Lt. St. Gnat H. St. Agg V. LEN LEN. Agg V after attack - St. Agg V. Gnat H.

Q. Selecting an roost, Atti in oonie communal area, green rocks, lean, condition of "lake" a meet. A group of 50, 000, capesite. Goat cup.

Q. Agg V. St. Gnat St. Agg V 4th H.P. H.B.
Mijiflajflajfjflajflajf

pursue, although will not point me strongly upward. This may be significant. An alternation of $\theta$ and $\gamma$ is very reminiscent of the song call performance of the $\theta$, $\gamma$. Might be strictly homologous, but have difficulty in the rhythm in the so-called "high-intensity rhythms" of the call.

Strategies can be either way in ordinary flight.

Looks just like straight streak
in distance

Line of ventrocochlear slurring
aerial flight.

This is also fairly good about the curve & shape
of the upper mandible

Fairly exact drawing of "C" showing how types of mandibles are together.

Nearing 8:00
flight ICN can be gotten from posturing the posture, and is frequently

It's St. St. at Cat. St.

St. St. at Cat. St.

Should mention, before I forget, that the day Donna lives in the afternoon, there weren't any shiny brack on the communal area rocks. This suggests the day may have to the communal area in the mornings at this stage.

Notice that some of the C's in which mate, "parade" have an almost imperceptible C. Too small to be seen except at very close range, and the right angle.

The usual sequence of "M.C" displays is, I think, first some $\gamma$ winging with associated posturing, then some mutual flight performer than subsiding and relaxation, usually passing through a V then on the way down.
Is the yellow-wattle at gapo swollen during hostilities? It is certainly much more conspicuous than when the bird is sitting relaxed in a neck-mov- or -less - retracted position. Can also confirm the fact that carrying one excited during hostilities at least like more aggressive facing, including and etc. Just watching a bird standing in quite alert posture, neck must long, with "carrying" flat to side of head or neck). 2:35

Watching these birds has given me the impression that Fowlers is a relative low-intent, performance. Sometimes given very briefly as a brief when its mate lands beside it - without other chit pairing e. without head or. Also given briefly by both sides as low-intent / interaction performance.

Also, before I forget, the Fowlers given by "5", presenting to "A" is apparent almost invariably. At least I have never heard it - and I have been quite close to such "5"s. On the other hand, however, the Fowlers done by mates, and that done by solitary birds during disputes with neighbors, is certainly audible. Not lately, in the cases I have been near enough to hear.

Emphatically one point, I have seen very few (probably none) reduction attacks on neighbors performed as a result of hostility between mates. Reduction will the other way round.

Not exaggerated! Curved body is almost invariably or always present during aerial...
LCN open, body before landing. This is perhaps the nearest thing to a landing call I have seen.

In all the grand jet performance, the bill is not a natural gape, behind the front part of the wattles.

Some of these birds are rumbling in wing feathers.

Have noticed quite a number of birds flying off in jet (not jet flight during silent phase). Does this mean that actual jet with jet flight contains a stronger attack element than can be without jet flight?? Hunter checks confirm 9:45 Have seen it again again.

Have recently heard that “whirring” buzz, bit by bit, flying up in silent plane. This must be the correct thing to an ABC, but not apparently given by birds just flying, our head poles covering me.

Wings are usually more spread than raised during LCN.

Notice that head is not stiff, it is flexible in the LCN complex patterns. Often turned to face opponent.

When the bill is really wide open, with LCN’s and some G’s, it is open all the way to the end of the wattles.
Some V's, look very large-headed, small - thin, brachial, i.e., like the v's of grulls.

"Migrant" flight of two kinds. Impression with G. comm. can.

Is this significant?

Couldn't hear any call.

Further notes about "usual" M. G. Denta not infrequently associated with the parading in V. Fort. I think, when V's are at their most intense, is an indication seldom associated with V-parading.

(Although a bird will frequently give an extreme ST. immediately after landing, but may sometimes land with wings outstretched. Fort is likely to be as much a reaction to neighbors as anything else.)

Perhaps the fact that I tend to think of the "usual" M. G. as being V complex --> Gt. complex --> V complex is due to the fact that we often see one male land some distance from the others and then approach on foot. When one male lands beside the others, our almost certain that the "usual" sequence is Gt. complex --> V complex.

Revision of general (complete) general plumage, round.

Exactly like the usual EOV of adults, 10:10.

Calls during the brief return to potential colonies are nearly the same as when a flock returns to the colony after a silent period. First a general burst of Gt.'s or careening up and down, then much general Gt.'s.

11:00

Y-G's before attack, V-S. between attacks.

9:00 - 10:00: Y-G before attack. Gt. attack - Gt. attack.

9:00 - 10:00: V-S before attack. Gt. attack - Gt. attack.

9:00 - 10:00: Gt. attack. Gt. attack. Gt. attack. Gt. attack. Gt. attack.
Two birds circling near me. Probably reacting to me. Flying in "elegant" flight part of the time. Several LCN's. Also much flying with "slopop" head-neck posture down or preceding pages. Some LCN's under strong wind open bills. One of the LCN's in wide open & suddenly flies several yards with nodding gliding wing-beats of wide amplitude. Must have been at least 2 or 7 studies of this (which might be called the "real" Butterfly flight). They assume "elegant flight," circle once more, and go off in different places.

There is no doubt that the aerial LCN appears in the same circumstances as the aerial LCN of gulls. Generally single birds, for existence once or twice when flying over me. Certainly not common. However, relative less common. In all probability than the LCN's of most of the species I have studied.

Forgot to add that the other day, when I was in blood near a potential colony and while it was vented briefly by a small flock, noted that several birds entered holes by following.

The energetic flights of this species, the one I have seen at least, contain much less hunting and turning than those of Bonaparte's Gull.

Gull, turn up about faint flight, there doesn't seem to be any. I haven't seen any flying bird carrying a fish. All swimming. I haven't seen any flying on the communal roost. I haven't seen any trace of flight. Flight originating species either. The apparent alliance is quite remarkable, and undoubtedly of considerable comparative significance.

Bird flying in group near me. Gives a LCN's, in "hang-in" posture, with slow wing-beats of great amplitudes. (Perhaps a little less exaggerated than the "Butterfly flight" described above).

The whole status of "elegant" flight is rather a problem...
Inca, Nov. 14, 1955, VIII

Poor little nutriated at best. And probably several types. 1. Connly shows why birds use a hurry - nothing else. Perhaps unlikely. 2. Rapid, longfooted flight combined with erratic flight patterns. Particularly with birds that appear to "sit off" or "fringe" select places. 3. Perhaps during simple sitting near a potential predator. 4. The least type of flight should never be used by a low-intent, more sinuous flight, or hanging posture, with G and V.

Leaving 11:20.

Back to large colony, where I worked yesterday; two or three days before, 1:35. Have to get in a little myself.

---

This LCN before attack during rutting season fighting is the ordinary LCN; or at least, only a brief, unfluffed version of it. It is not the type of LCN, the "attack LCN" sometimes directed at me. The latter type only occurs apparently during rutting season fighting, immediately before certain sexual attacks. Even then always brief and not very conspicuous.

Pain trying to take over place as nesting site.!! Entering it

Finally proceeded much Cht, in F & S (there's no room for anything else) for cuttlefish.

Have seen a number of buds coming fiish, and also a number of "raiders." Littlene really all over the place, but remarkably conspicuous. Intersed with those as such. Also much interested in

2 white fish. Usually just start to roll up to 0° in rather weak air. V. One bud, however, repeatedly shut at a "0°" each time he
came back from a circular flight. The behavior of most males of 079 appeared to like that of a 076 observed previously.

Familiar incident: A 99 frequently, early stage of pairing. Close together. Walk around a little. Alternate periods of guarding and eat UV. Also, it appears that a cat was almost pure F. much of the time, twice of it occurred. The mellow J. is almost the same, that the 97 message, followed by three times, at intervals of several minutes, each time an attack from Agg V (may briefly, just moved momentary) after 0.

Immediate groups back a few miles, close together. (Agg V + HF = Agg V + UV at UV + Agg V + HF = CYS V. Nothing that HF is almost all in Agg V.) She goes on a long while. Finally, a down with developer, begins HB -- and the battles begin again / 1st OS

The above soliciting 90 was approached by a Turbo owed with fish. 90 stood in usual FQ, got no response from 90. When paccu with her own 97. It is remarkable how the fish carrying 97's are attracted by soliciting 90. 90 then goes to a nearby hole, still carrying fish, with its cat in it. Approached by "rushing" or "attacking" in usual way, and the 90 attacked the advancer in usual way. Both stop.

V. C. G. = gold after attack. W. H. M. = white after attack. 

V. C. O. = after attack. W. H. M. = white after attack. 


Something [illegible] explained enough in my drawings.

SH. R. in the height to which the deer

end of the badger was saved.
nica, Nov. 14, 1955, TX.

*terns


Another soliciting for fish. In H.R. Able to have it and immediately flies up 3:27.

One of the fish, smaller, little circular shape, floating in at least 7 different places. Layed over and over different places. At least 500 gadd away. While I watch he gets no response, and then 2 lose him.

U+G = O+G - LN = O+G. LCN = O+G. LCN = O+G. LCN = O+G. LCN. (stimuli include lastly a crane dropped out of feed.)

ull is near wide open in center, usually almost closed.

What I have been reciting a typical "U+G " and "O+G " Obtaining variations of one homogenous pattern of all are low-altitude LCN.
Nov. 14, 1955

Briefly watching several I doubt fish. Mate, at least a little
6^4 M-
F. 2's stand in F. Tend to present in F. With out silent
F." I first notice a F. 2's named. Sometimes "begging" H+R + HB
sometimes F + Ch. (either as soon as F. 2 appears, or when he begins
"silent" Ch. ) 3:40

1. F + Ch. gets up. Anv. V. O + G after attack of shop & Onto.
2. F + Ch. or C + Ch. (or both) attack. Neg. O + G.
3. F + Ch. gets after attack - Ant.V.

O + G interacts complete with "V" + O on the one hand and
4. F + G on the other.

Interacts between "O + G" and "F".
G. yellow short, curved

in air, in wave - F. - picture by hand flying up to attack an
opponent from below. O. white, some G. in some portion or other.
Always the preliminary to attack, in air and probably below. 4:40

Arising, filled & HB in H+R. Q goes to meet. Bob silent F + Ch.
into it. 2 join, but change to meet hole. Dee: F. + Ch.
out of hole, off on circular flight. The whole procedure repeated as before, except
that this time Q. goes back to HB in H+R. Then flies off on circular
flight. Back to HB in H+R. C. stands in F. O. off two more
circles flight. In each case gets the same greeting by the reception
HB in H+R. By Q. at first, then F + Ch. by O. after to F. + Ch.
hole (Q. stands behind him, behind him, and facing into hole also)
Q. begins HB in H+R. wherever it backs out of hole.

An F. with fish. 2's & O. makes bill movements, slight, and
2 thinks utilizes same sort "nah" or "nah" sound & makes drum,
Vice, Nov. 14, 1933

HB: (Word of caution; this "shaki" transcription may make it sound like Nall of gills — and so it is — but not in such shorten)".

defense

Feat: AV — VGC AVH — AVU AVH — AVU AV + AVH
after attack: AVU AVH before attack: AVH

Notice that a bird, displaying with 2, who has full, while doing much of its work in its area, is also quite willing to 1 and 2 (even though the 2 does not 1 and 2) — particularly when disputing with neighbors. Then 1 and 2, in this last situation, are seduced to the same degree as usual.

One posture is exactly like Gorst

Very short-wheeled

None of the Gorts or has the real "hump" of the "Beringa"-stelling" of the Sturnus terns. This Gort is apparently an unmarked, unmarked, as it is nothing more than the intention movement of feeling downward, (This explains why it is still exactly like the "Gorsh"-stelling)

Another posture like Gorst (This angle of head + body + length of neck is extremely common in real Gorts — but much more in 2, primarily because it is a "low-

intensity posture").

Feather attack: AVH after attack: AVH after escape: AVH
Each pairing behavior. Much gargarizing by both (clearly&
retreat in one, advance in age V), then & begins attack.
After age 6, age 6, age 6, age 6, age 6 (followed by Thrush)
flight with st. goat goat.

The 2 component of pictures seem to be the long-velvety one
& the shorter one, like
the way to the ground.

I really don't know what the difference between them is - except that in some
cases it appears to be a matter of room available.

I have never seen st. with bill wide open. It is always
moved rapidly between half-open / or (at most)
and closed (perhaps much
little) almost-closed. This rapid opening & closing movement
is apparently correlated with rhythm of call itself. The faster the calls,
the faster the movement.

Leaving 6:17

Tuesday, Nov. 15, 1955
Church & 2

7:40 Large eagle again, but moved blind. Bub. Panches.
Verge all in this communal area 8:55.

No one is on display at lands on ground toward flying birds relative.

These species, but they also only occur when the flying bird is not close to land or ground. This helps to explain why it is predominant in my counts. The one possible exception is provided by some of the LFR, screaming on a flying after silent pants, and I can't tell what is screaming at what turn.
One of his visits was to a spot right next to a copulating pair, when the fish-carrying one swam throughout his visit. 7:46.

**Mc**

Rain knob. Me of mutual Agg. V. **Agg. U.** Then face each other in E. Then swim F and C. Up in Agg. V. Again walking around. Lags HB in HR. 1 stands on rear of e. extreme "and V" (almost and) - observing, just an init. move to lay up. Does two HB movements from this posture. Then walks outbuild in Agg. V again. Continues soliciting. Approaches her again. Stands right bend her to avoid attempt to mount at any moment, and then both fly off in silent yanı.

**Mc**

Because of the tendency to hold out wings a little or rather hold them so much away that they can visibly as an init. move of flying, it is almost onfain impossible to distinguish between the "alert posture" and the **Agg. V.** Thus the **Agg. V.** appears to be a rather little ritualized in this species.

A word about "canyon raising" in general. It is present in all the beetle and new species of this species - to a greater or lesser extent. Perhaps more frequent conspicuous in **Agg. V.** But never conspicuous as in young **Agg. U.** Never a "shadow effect" comes in.

At most, little this:

![Diagram](image)

Usually:

Thus, it might be better to say that the canals joints are laid out completely and concealed a little. (See the drawing.) And this is the rather day of the usual routine view.

There has been on the average. about 2 panics every 5 minutes - all morning long.

**Mc**

vicen, Nov. 15, 1955. III

One very serious problem has just occurred to me!!! One was to repeat many, many, many times, that appears to be winning low intensity, just as close as you can get. Then what about the V complex??

I think that relatively few of the V's look as low intensity as many of the G's and G's. Is it because I can't recognize the lowest intensity forms of V??

Equally important, is it possible that many, even all of the V's contain a sexual element??

All sorts of problems. For instance, is often obvious related to V's. Not infrequently incorporated into V's, but it is "any V" that seems to be the strongest "pre-escape" pattern. Probably, G's are obviously related to App, but it is the App V that is the strongest pre-attack pattern.

Granted that some of my G's are probably anticholinergic pregnancy reactions, most of them are certainly headed...

It is usually orientated down toward the limit for which it is intended. This is particularly true if it is intended for the mate.

Half of deadfall shall 10:45

Commune...
Perhaps my theories about pain formation need a little revision. Just saw another case much like yesterday afternoon. "3" with girl. 
Guns from communal area to communal area, retired 3 of them.

The extreme being some 50 yards apart. At each place spent what
of hostile gun fighting in FO. Several turnes attached probably by a
neighboring territory owner. Also "4" being displayed with
least two or three levels. Visual sign of display "O" in 4 that appe
ently silent "G" in 4 Credit certain grounds in least one case.

The first gun of 4 hit a wall - strictly impossible to
transcribe. Highly dangerous might be launched "towards like tike...

... ... ... ..." at times

Notice reveals anal ft's with 2 -- by pursuers in Meth
flight. Also note 2G in Meth. Right by louds escaping in panic

Leaving 12:15. Back 1:55

[Handwritten notes]

Notice one pain in communal area, probably not paired long.
"S" with "J" does "silent" F at "I" toward 4. She does audible F at "I"
to him. Then 9 walks away in 3 minutes 15. For a few seconds then
moment and 4 for the next few seconds, etc. Combined with 10/1 (msg.1)
and F. Notice that his fits were definitely with pain away from
"S", this was quite clear and unmistakable. Then "S" relaxes, starts to
sneer. F stands at FO when the last time 4 was able to take him out.
This F at mutual performance, and then disappear into hollow. Can't see
them there, until 4 moves in for a completion attempt, stands in his
circle,2 synchronous running wings, and swollen "G". Then real cop
attempt. F's - potentials mutual clause "O" (plus next 10/1) - Gest
- V. then rules temporarily 2:40.

It is noticeable that even in communal areas a lot of attacks are launched from unreactive postures. No more preparation than "launching the opponent, and Gen'k 8". Bullying leads a week toward him slightly.

Possible beginning of mate-site selection. 2 land at a foot of 2 ft from Q., on rock in border area between colony & colony area. Q. does not walk to Q. in Agg V = 2 at her & walk on in Agg V. Q. did not go. As it landed, but the rest of the time she just looks at the rock in a thoroughly uninterested fashion. Creatures alarm ed not excited in any way. Q. continues walking in Agg V. 2 go to our potential site. Looks at it (ment in V. an occasional F. int. mov. 4 flies to another site. 4 flies to another, about a "behind line", closer, more of 4.5 into 3rd site. Then gets involved in some general disturbance... Both Q. & fly off.

Just saw another military 3, with sick, mangled area. In Endo, goes towards site in H, 4 chit in hole, out of circular flight, back, swallows fly, off again disappears 3:06.

When Q. does transfer a sick to Q., it is certain in F position. Coming preceded by single or mutual chit, preening in low Q. and F. and 4 soliciting in H & R with H 4.

Head is says "rounded" when elevated.

Sometimes, LCN is given to end fly up. Generally aggressive or "high interest". This brief LCN - it like pint struck me - comes, zephyr-like like the brief LCN sometimes given by Bonaparte's or the guy-headed Kild before flying up.

After casual flight, both bricks fly away in North Flight, with a rather peculiar, slightly ritualized posture which might perhaps be called "broad curtain". Is it possible that this posture is always present in North Flight if it isn't ???
Uica, Nov. 15, 1955.

Not too unlike aerial fish-carrying posture. Probably even agression toward fishing to this sail — and notice the G.

The reader note of young pilot, but closer near. Type of pramance.

Have been watching coming much as before, but a few minor points to add. Have seen fish in perfect F. Have been fish-carrying, flying from spot to spot on rocks in communal area, displayed with forked tail in place (normal F+Hat berries), then flew to near spot to fly to another spot in communal area and sat in FO, then G flew to exact site where G was exhibited displayed with forked tail. Both flew to communal rocks (still carrying fish) and displayed again. Have also seen G in place in FO with out a trace of display, with no attempt to take fish. Other G alternated. No attempts with buds of F+Hat.

Just as usual orientation of 87. Stupid of me to have missed it first clock.

Watching G with fish in F and FO repeatedly try to approach a.g. the was in H+R and HB area. But each time the G came close, the attacked him (there were obvious attempts to take fish). This happened 7 times!! Finally the G quiet came out of the H+R area and stopped HB, not moment for attack. Since becoming the dominant F+Hat, level. Always went back to H+R+HB area quickly. Then all swept away in silent lane 4:20.
The most extreme long-necked Curv. 1st and 3rd, and 7th & 9th cannot exaggerate the length of the neck. Incredibly long; thin; the beaks look

about orientation of "S" - this is obviously extremely variable. One beak landing in communal area usually sits on algorithm, with
out any reorientation. Most of these are slight, but an appreciable percentage of the relative short-necked, even "S-bent-neck" type.
Those few that appear to be "silent" (i.e., are oriented much like itself; i.e., usually re-oriented to face partner, i.e., reveal chin or
yellow under beak, etc. During some V-pairing of water, some
beaks will extend along edge hidden, will give it with back of head
toward partner, i.e. hiding most of face. These beaks appear to be some
what "alarm" in our tests before it. This interpretation of course,
depends upon exact what type of our. In any case, it seems important
interpretation of their. There beaks tend to be of the long-straight-necked variety.

In the case of one 7th (relatively long, straight) before attacken the aggressive bird was seeing away from the opponent. i.e. hiding
face and revealing black cap before the attacks 5:00

It's often attacks tend, I think, to be of the relatively short-
necked S-bent type. They are certainly oriented like the other
on landing.

Head & make regular, not muffled, hit round whole along
Fist with fish !!!

A with fish skew to a q who is HB in H & R from another 57
At 0. The new animal also attacks w F, walks cautiously to q, back
forward, etc. q stops begging, q fist + stick off. Second & 7 stands
in F0 a moment, then flies off too. Another example of the attraction
power of a soliciting q !!!

There's a tendency for 7th in F0 with fish, when standing
without a q, to give quite a number of general shakes (i.e., muffle all
the plumage, and then brush, shuffle, shuffle, shuffle). This is so frequent
Lucas, Nov. 15, 1955

That it may well be significant 5:15.

I have noticed several X’s with such, while men or less displaying with one to be approached by “advancing.” Then latter may even go on for as F-Bit with arm, but this is as far as the “fritulation” gets.

That paid purses, incidentally, returning on intermission, will also often F-Bit at a 250 m F-Bit carrying such.

I think that my “weak” or “nailed” St. tends, if re-oriented at all, to be turned chin toward the opponent or partner.

Much “nervous” fleeing after V-type N.C. and in the intervals of V-pancaking.

During V-pancaking in general, there is strong tendency to prevent back of head to partner. Birds often stand in V, lying strong from one to the other. All the slight limiting movements, H-7:57.

I must note that this H pattern of Lucas is more ritualized than that of other bears for several reasons: 1) not only is there an agency confirming, R., but also 2) the general tilt of the body, tail upwards and head bowing, and 3) the “F-Bit” pretending “descent.” The only time I have seen anything like H of gulls is momentarily bending the assumption of the extreme H or 1:55.

Another case of X who has been a little lesser a 250 m F-Bit sends, flies off on Math. Slight north W.

Leaving 5:55.
Back to bluel, same plain as yesterday, 7:05 a.m., have to get
in by myself.

Comm. area.

Should emphasize that the "F" of F+cht in purely hostile circumstances is anything from a very low one to an extreme form of L, to a "real" extreme F like the B.I.G., the F of F+cht in semi-real circumstances (e.g., sub-carrier), by contrast, is almost always an extreme real F.

Natural earlier, near hill, bay, "V-garding," etc., etc., on
roof, and unless abandoned ship could follow, this F+cht holds then flies off in mixed flight with H and trace of F+cht?

Flight. This is relatively rare, but it probably actually occurs not infrequently.

Comm. area.

Quite as dull as yesterday, in the communal area 8:00. Almost as usual.

Silent pauses in the colony.

Comm. area.

Confine UV to only one hour during aerial fights. Even them it
is brief and relatively infrequent.

Notice one "pair" in which the F+cht carrier and the F+cht
not of F+cht at almost constant, occasional line, also at 0.
The owner of the V-243 was found guilty of treason. He was executed by firing squad.

The trial lasted several months, and the defendant was represented by a high-profile legal team. The court was divided on the issue, but the final verdict was thrown out due to technicalities.

The owner then appealed to the Supreme Court, but his case was dismissed.

The owner then appealed to the United Nations, but his case was also dismissed.

The owner then appealed to the International Court, but his case was dismissed.

The owner then appealed to the European Union, but his case was dismissed.

The owner then appealed to the United States Supreme Court, but his case was dismissed.

The owner then appealed to the United States Congress, but his case was dismissed.

The owner then appealed to the United States Senate, but his case was dismissed.

The owner then appealed to the United States House of Representatives, but his case was dismissed.

The owner then appealed to the United States President, but his case was dismissed.

The owner then appealed to the United States Attorney General, but his case was dismissed.

The owner then appealed to the United States Attorney, but his case was dismissed.

The owner then appealed to the United States District Attorney, but his case was dismissed.

The owner then appealed to the United States Magistrate, but his case was dismissed.

The owner then appealed to the United States Marshal, but his case was dismissed.

The owner then appealed to the United States Grand Jury, but his case was dismissed.

The owner then appealed to the United States Grand Jury Investigating Committee, but his case was dismissed.

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preceded by "Ani" - G. But relatively rare. And always or almost always difficult to distinguish. This is because these attacks are usually seen in certain circumstances. The "scapegoat" normally either a new bird who has landed nearby or a neighbor who is doing playing. If these are not true "scapegoats," they have given cause for being. E. Other redaction attacks are always or usually not pure redaction 9:10.

Again notice how the juveniles - miniature tend to be relatively more aggressive than adults and the communal area raids.

I have heard one almost adult - quite completed adult LCN pattern. The almost adult G. and three can't have been more than 2 or 3 of them, are the only juveniles included in these counts. They all had red bills, yellow wattles, and white mustaches.

Aerial raids given by both birds during an aerial fight. They both seemed to be aggressive, both trying to attack simultaneously.

Most fights - it must be at least as common after real attacks as it was, before, tactical attacks.

Emphasis. Tongue almost never relaxed in any of the G posture, wide open or slightly open. And the bills are very wide and open, when wide open there is almost always some LCN, however faint.

A fully carrying LCN is much like an inferior product of the Thunderbird's art. Badly stuffed. It's the combination of the drumming part of the Thunderbird's.
The only really common & synchronized movements of pictures in the air, in fact, are the Moth Flight and St. Can confirm this again as I have been looking specially for others.

It is possible that something like a "hanging" picture, with LEN or 0 sometimes occurs on the left, but it is certainly rare and unimportant. And I have seen nothing here today like a "Butterfly Flight".

Must emphasize how frequent one or both breaks & away in early at a Moth Flight after actual flight. The fact that both do not occur suggests that Moth Flight oft is far from "almost equal" escape. Must contain an appreciable attack element.

Think there is a definite tendency whenever Moth Flight with 06 is prolonged for the wing beats to become of smaller & smaller amplitude while losing some of their special and the Moth Flight to develop into grids. This appearance might be deceptive, however, as the grids might just be normal part of turning after having flown down the slope on which the colony is located.

There has been an almost adult bird near my blinds (it has red bill, stripe, feet, yellow wattle, white plumage — but brown plumage) in the communal area. For at least 10 minutes it appeared to be defending a territory — a large flat rock cleared of all the birds that...
Led out that rock. Did this with a lot of LCN's, many before attack. Did nothing else. The raven of displays territorial flying tundra. Had an "adventure," in complete general phenomena, usually - who kept flying to different rocks around us, traveling in anuvel much of the time, and made several very brief and tentative attempts to approach the aggressive almost-adult. Never close enough.

Then the aggressive bird released, flew to adjacent area, greens, flies away, 11:30.

I can't help but feel that this sort of thing might be the first approach to the first pairing.

(Incidentally, I didn't include the LCN's, or any of the behavior of this aggressive almost-adult in my counts.)

Leaving 11:50.

I have taken every opportunity the last 3 days or so to discover the status of the call of an adult. I know that any notes of the first few days refer to it as an "normal call." I had begun to doubt this. And my conclusions are as follows:

It is really semi-normal or pseudo-normal. Sometimes given in quite a typical form, by little flying up (even during sickens, sunny) and landing near others. Still rare with rare circumstances.

Even more, it is a pattern by really flying bodies, but I have heard a perfectly typical chit call given by a bird circling near me (perhaps disturbed by me).

Much commoner is the "smoothed" chit, given by birds flying up in groups, during sickens. It is almost inevitable then. Some of these smoothed versions sound like 2 or 4 normal syllables - but, others sound like 3 or 4 normal syllables, ended melodically with a particular loud, explosive syllable. A few rare calls contain odd 1, 2 or 3 syllables; and none of these are sometimes slightly reminiscent of all of gulls. Sometimes, organic sounds are, just one sharp note.

1:15 p.m. Have just taken a small walk to the small.
Mica, Nov. 16, 1955

Colony, and the communal area was nearly. No迹象 of birds, although boobies, etc. sitting quite undisturbed. This makes it seem more likely than ever that this group of birds is in the "colonizing" stage, and makes it even more remarkable that I didn't see any signs of flight flight the day before yesterday.

Pipirican

Wednesday
November 16, 1955
Churchill Sun

Just a word about the behavior of the juvenile Franklin's gull. We've seen several immatures and one adult, one scattered, now and then usually all around the shores of little islands.

Quite immature — as might be expected.

Among them they do have a quite brief, usually single "ready," "broken" "juvenile," or "Kee-see," or "Kee-see-an" sort of buzziness — quite brief. Sounds sort like the birds with barred doves.

Unusual, quite silent on general law: one bird landed on the amount of an area, the only resident. All the inhabitants, and proceeded burst of ICN's to the nearly birds. The juvenile summoned back with a burst of ICN's mimic-related picture, with slight trace of...
Notes on Larsa belcheri

There have been a number of these birds around from time to
time during the last few days, and I have been able to watch them
occasionally, in the intervals, between watching Herring

Pairs and single birds seem to have "stations" favorite

sites where the birds can be seen most of the time. These "stations"
were very far apart — nothing like a colony, but there was occasional
visiting back and forth. I haven't been able to follow this at all,
but some of it looks like "pairing" like the Herring Gulls in Vir-

gina.

Some notes on Long Call Note & Long Call

Voice is a particularly piercing, high-pitched scream. This
"pairing" is particularly noticeable in the LCN. The LC is somewhat
more melodious. Voice is classic like Herring Gull — not as harsh like
the Ring-bill.
The usual sequence of the Trumpeting seems to be as follows: a few notes (usually 2), loud drawn-a-relating soft, "Waaakah, Waaakah," are uttered in the HD posture. Then a series of harder, shorter notes (pardon beginning somewhat high in pitch) are given from 0 -- roughly, considerable variation.

These 0 notes may be continued for a long time if a dispute with another gull is frequent, as a very much longer series of notes may be uttered, each note much like an O note during normal Trumpeting, equally short but all about the same pitch.

The HD notes are very reminiscent of the M notes of the species. I have not, however, heard the M of this form.

The O part of the call in particular is reminiscent of the Herring Gull. See photo 9-11.

Correction: Alt. "Keb Keb Keb"-gull-like, a "Keb" "Keb Keb" or "Keb Keb Keb".

Physical description: Looks black-white most brown.

Grey bill looks heavy.

Eyes: Dark. Black.

Small ring around the eye is largely feathered (white), but yellow is visible at corners, and in a yellowish, legitimate line of yellow above eye.

Manic color bright yellow, little red.

Corners of mouth are yellow, red. No color at mouth of bill.
This pattern of red color on bill is extremely variable. May be absolutely different on the two sides of the bill of the same individual.

This definitely is a two-phase type Trumpeting Call. I have just heard one with a of 3 preliminary notes, (like those given from near a Henning Gull), and these were uttered after the head went down in H.D.

I have seen one brief T movement from F, and one by F in the likeness of H. formed a particularly high-g pitched LC.

MC 1 joins F. Both U fortune. Then a series of "quits" (at least 6)

I think that this "quito" I have been recording in MC's may be something quite different. In a pair of above pairs, the call (at least 1 of the "quitos") appeared to be a fleeting or (more probably) drinking reaction. Depress bill in very quick, swallowing sort of when head full lifted.

Difficult. I wrote the above as soon as I looked up to see another. Don't know who joined who. Both shifted H.D.

5 - F right. Then 0 walks away, peaks ground once, walks, does real quit. (Appears to be quite relieved during this PAC's 2 quits.)

Another MC, the details of which I don't catch. This followed by downward 9.6 0 walks away in semi- U, does two real quitos, with bill open, apparently silent. Then one ordinary quit. Is this coincidence?

Another MC, the details of which I didn't catch. 0 walks away, midlight 0's C. peaks ground, makes "swallowing" CBC movements after lifting head back to semi-U, although I couldn't see she didn't fly up anything on ground.

Trumpeting Call is certainly the usual display by one mate on ground toward flying mate.
Have seen to E M C's, much writing. First - the situation is beginning to resolve itself. "Typical" M C's can be described as follows: the bird on ground does HD 0 before mating, then displays U + VHF. (The U appears to be either "simple U" or "complex head-set")

There are two common variants to the process. (1) The settling bird doesn't settle to HD 0, so display is confused to U + VHF. (2) The bird on ground does HD 0 after copulation, thus evoking the HD 0-U+VHF mutual. What happens after this is more variable. Sometimes one or both birds will go straight into chlicing, sometimes one or both birds will perform "reveries" type. The corncob of Gast does not stick to Anu + VHF each time and then stands in Anu + VHF until the next Gast. Sometimes one or both birds may also display (to be followed by C's wadding in" mechanism, afterwards subjecting itself to actually drink water or ground etc.) Sometimes, if off ground + eat it. All these downward movements of head will light the eye to be seen, coincidence or pure autochthonous. Particularly in view of the fact that chlicing is so common in the same situation. (And the chlicing occurs when there is no "third bird" present to complicate the situation.)

Speaking of chlicing. M C., it is often preceded by what appears to be "preliminary" displays in these circumstances. Sometimes Anu + VHF together, More often, both in U. Gost and Anu U, either open bill (widely) and keep it open, or open a close bill (open wide, again) medially along. The "preliminary" to ch sometimes occurs without subsequent ch. 

I haven't managed to hear the sounds (jay), accompanying ch., M., and the other "pelicus" to ch.

HD 0, the common display given toward "strange" flying birds by birds on the ground (with or without mate present).

U, HD 0, and ch all extremely common during violent dispute on ground. U, HD, and ch all common before attack.
Some had more opportunities to observe some of the same behaviors.

The UFO landed and proceeded toward flying water, about to land.

Were able to witness a copulation attempt in considerable detail. FB with sound should really be transcribed as "Klio," quiet-like other Lancequills, walked about. Monti was U. Once down in M position (couldn't hear call, same). They stood in U, opening more of LCN sounds, relatively soft, (call opening, closing very), interspersed with sounds of downward movements, nearly gentle once flapping. They mounted. Copulation like that of related species. Apparently a Cop Call—but couldn't hear sound—which means that it must have been very soft—much softer than either LCN or FB note. 7/8 bill semi-closed during Cop. Call.

Post Cop display mutual U+HF.

The various downward movements, including PAC = "drunken" seem to take place in this species, to the movements of other species, at least in pairing or sexual situations.

Relatively low intensity HC's appear to be rounded.

Higher intensity zones are apparent straight.
again noticed the relative great frequency of aerial
LCN's. Almost constant when buds are flying separately.

The fact that I have seen no aerial Long Call may be
significant--in view of the frequency with which the birds
utter notes of loud, rapid, close together. LCN's, which
appear to be high intensity reactions.

Forgot to mention that, during the copulation act just above
the outermost one is not. This is the nearest thing I have seen
to mutual FB.

There are at least two pairs involved in proceedings
in front of my blind. One pair is very lightly paired—re the 0
attached the 0 twice after MC. 0

Some of the “minting” I have seen no apparent case of
an “unpaired” & minting a 0. Unfortunately, however, things
have always been complicated by the fact that the 0’s “own”
0 has always arrived very shortly after the minting 0, thus causing
several confusion & disputing.
11.00 a.m. Have been watching a dispute between 2 #2, which has lasted for well over a half hour. All very interesting.

General pace is very slow & cautious.

Much walking around in V's and semi-V's. Some of the V's become quite extreme agg. V's. This species has an "aggressive head-set" like the Ring-bill, but all the cases I have seen have been much less "extreme" in appearance. (This may be large due to the fact that the head is never so "thin" toward the front part.)

Much squinting during these V's and agg. V's. Certainly significant.

One bird had his eyes almost completely closed when his opponent was standing almost breast to breast with him.

Constant approaching and retreating, but all very slow and casual.

Many HD-0's during this period. Birds unable facing one another or standing more or less parallel.

A great deal of Goats. Must have been close to 100. Many in fact most of them did not develop into anything further. (See accompanying sketches for the great variety of Goat postures.) Some Goats, however, went smoothly into HD, usually after the bird had been standing in Goat for several seconds, possibly even a minute. These Goats were alternated with other downward movements. One quick at ground, a pulling of direct Illa!!

Several cases of putting bill into water and then shaking it!! May belong little bouts of blushing. Looked almost exactly like Ringing Gull. Apparently accompanied by rhythmical calls but again I couldn't hear it. Some of the apparent low-intensity bl. given from semi-V semi-chick position, coming from standing position with lines bent.

Bill opened slightly.
There was also a definite squat pattern occurred at times. Much like the squat of the Ring-bill, but bill never pointed downward as strongly, preened to finish, like it is in my drawing of the Ring-bill squat. Squat once occurred as a definite response to a change by the observer. Appeared to stop the change, which stopped dead.

The bill gave burst of 2-4's from U posture, head inclined slight downward. Bill opened widely with each note, closed or semi-closed between notes.

It was remarkable that there wasn't one actual blow-delivered during this dispute. Thus, plus the remarkably slow tempo, might suggest that the dispute was low-intensity, but the "exaggerated caution" of the birds makes me think, on the contrary, that it was quite high-intensity indeed.

The slow tempo, of course, is also reminiscent of the Young Gull notes on the song of the HD performance. Both phrases often quite short, quickly. Makes them look comparatively little ritualized. I think the "shorter" forms of the HD tend to be the shorter-speeded, and this may be further support for the theory that these are the lower intensity forms of the pattern. Have seen nothing like the more extreme forms of HD in the Ring-bill, e.g. head & bill are never far back toward the tail. Again noticed some variability in angles if O but always comparing low. Sometimes, particularly when directed toward a flying bird, the angle is just moderately high, and then gets some what lower as call progresses, until like .

One of the O's was visited by a & apparently histrionic during the course of the above scenes again HD-O before the came in. Then mutual U+HF-V+all sorts of Hurts as M.O. & in definite aux V. O not too aux but definitely not very aggressive by the standards of other species. Noted particularly in the case of the O, how aux V is very long-speeded, and very "thick", especially toward upper part of neck. Gives peculiar effect in contrast to short, chunky, body sort of like the neck of a Cormorant attached to a round black blob.
This pair was somewhat involved in the dispute between the 2 adults and an interesting case of redirection appeared. Some of the U-shaped gulls were seen facing one another when the other approached them. And, more importantly, the mate of each bird performed redirected HP and CH facing one another when the other approached. Quite clear.

3:50 p.m. More of the same sort of thing going on.

Notice that upward inclination of head during CH is quite marked — at least sometimes.

Have just seen one wings (239) to feed & beg for food. Whole procedure quite like Herring Gull. Couldn't be any M.

It is obvious, incidentally, that this species doesn't give as frequent a HP as the Herring Gull. Almost certainly doesn't give it at all in our area.

There is no doubt, but that a single pair and a matched pair are maintaining territories here. At least, maintaining them from time to time.

Spending much of their day away from here, just visiting occasionally.

The inside of the mouth has been far from brilliant orange in the examples I have seen. Most of it is just about like the outside of the bill, i.e., a dull yellow, just slightly tinged with orange. When the mouth is open, however, the corners are definitely more orange than most of the rest.

Have seen several very short-sighted Gulls.

Agg U (looking very low intensity) before attack on Grey Gull
helcheri, Nov. 17, 1955, IV.

Agg V (looking very low-intensity) before attack - thin G during flying attack, quite before the moment of impact when attacking a pair of helcheri.

Yes! These birds are definitely completely territorial.

One of the squares I have seen could be called a freeze.

G during attack on Grey gulls - this appears to be unmitigated.

Leaving 5:40.

I don't remember ever hearing a landing call by a Belcher's gull.

Cirrocephalus

Some place as yesterday when a pair of Grey-headed gulls landed. One is immature, the other is adult (perhaps 2nd year, complete adult except for a few dark marks on tertials which may be signs of youth).

There was a dispute between these two birds when they first landed, the adult did not care to be approached by the immature. I didn't catch the best part of the dispute, but the following points are certain. Adult made long LCN notes, "Kaaana Kaaana Kaaana ...", very buzzy or rasping, no effect, no twang. From 0, which looked almost as much like Hartlaub's Gull as anything. A slight tendency for succeeding LCN's to get deeper in pitch, but there were never more than 3-4 (possibly 5 of them) very real LCN's. Call effect. This followed by about 5 very short single LCN's. This lasted 5-10 minutes.

The immature was silent during this dispute. Flew away. Landed later after 3 or 4 single LCN's. These were a little unexpected, a rather clear "Kiao" sort of thing, no more like the Laughing Gull LCN's than are the LCN's of the adult.

Notice that dark red ring around eye is quite conspicuous in adult.

Adelto the "staring", hypnotic effect.

The usual Alert Posture is present.
Nov. 18, 1955
La Puntilla

Belcheri

Have definitely seen HD-0 introduced by semi-0 & 1012 introductory.
LCN notes. Have seen this twice, but it is still occurring extremely rare.

Sometimes three full (i.e. long) notes during the HD. Have also noted
that, while the Ophite can be much prolonged during dispute, the HD phase ap-
parenly is not.

Nov. 19, 1955, La Puntila

Belcheri

Notice that much of the ch is given from postures apparently identical
with Gort postures. Low one sequence: Squat (head as in Agg. VI) — Ch.

Condition of a sort. Haven't seen any ch as long-velled as my
long-velled drawing of Gorts (which may be too exaggerated anyhow). At high
intenities, legs become jaxed, but fluid doesn't seem to rise during "pure" ch,
and bill flutters become conspicuous more fluffed or ruffled.

Have seen Squat & Squeg follow Ch immediately.

Choking with bill deflected closed, (not too "swollen" an effect
around lower jaw). Heads not far away— and little my—and yet I still did
n't hear any sound!

One wonders if the reduction in number & variety of vocalizations,
apparent in both this species and rice, might be connected with the constant
pounding of surf in their breeding environment ???

Nov. 19, 1955
La Puntila

General note on distribution. The same species here now
as when I arrived, i.e. belcheri, modestus, cerroplatus, pipixcan
and a small term, probably lorata.
Nov. 20, 1955,
300, Lumia.

There are three juvenile Belcher's Gulls here. Unlike the
birds juveniles observed in the wild, they are very active. Mostly displaying
among themselves over food. A few disputes with a Grey Gull (see below).

They showed the following patterns:

The usual alert posture. This seemed to grade into a
posture like usual adult U (i.e. not very "aggressive"), except that the
causal joints were not raised or lifted at all (remained invisible in fact).

This appeared to be quite clear, occurring during disputes, but relatively
rare. And, of course, it is far from easy to distinguish between an alert
posture and an U, when the latter is not accompanied by corresponding

G during attack, but more important, definite G by 3rd
during aggressive rush or advance without actual attack.

A whole host of LC and LCN patterns.

Among the LCN's were a few that sounded like the "usual"
juvenile babbles LCN's, not thinner.

The usual LCN's, however, sounded quite like the adult
AlC's of "typical falkus" gulls, "ha ha ha ha" or "ha ha ha ha ha",
quite unlike the AlC's of adult Belcheri heard in the wild. They are
quite definite, heard it repeatedly in all 3 birds. Given from usual LC
postures,

without any raising of causal joints.

Given some birds during attack, but
most frequently by an aggressive bird
advancing to attack. (This would

seem to suggest that the AlC of "typical falkus" gulls has been derived
from an originally more aggressive pattern of juveniles. It is noticeable,
unfortunately, that this polysyllabic AlC sometimes appears to be an
exaggeration of the "usual" jaw. LCN, i.e. an accentuation of the "med"
or "rattling" quality; suggests also that it is a mutant of AlC syllables.
It is ha ha ha ha, etc., that is equivalent to a single LCN. Doesn't this confirm the conclusions that I reached after studying juveniles at Delta?

These birds also gave complete trumpeting call performances. HD-0. Both performances exactly like those of adults, except for the fact, again, that the capri were not raised at all. The notes themselves were much like those of adults, except that they were "breezy," i.e., reminiscent of the Ring-bill equality of tone. This performance was given repeatedly, at long intervals, whenever a particularly bitter dispute arose.

These birds also had an H posture—just like that of the Herring Gull. A prelude or low-intensity form of "trumping." "Brogging" itself relatively common. Certainly good brogging.

In H. found the usual "bitez" type. I think it was just the same as that of the adults. Relatively slight HT.

Very few Gaita, young. No sign of the herring.

I must add, before I forget, that the plumage of these birds had been clipped. Half way or less. I don't think that this is the explanation of the lack of capri-singing for several reasons. The birds could, and did, fly a few feet in a low-austral flight. And similar clipping did not affect the capri-singing of the Audubon Gull in the same enclosure.

November 28, 1955
Zoo, Lusia

dominicans

Also watched an adult of this species, in bad condition, but surgical plumage, and gave several trumpeting call performances. HD-0, with posture & voice similar or identical to those of the Herring Gull.
November 28, 1955
Zoo, Lima.

Found a colony of six birds at zoo. Mostly adults, but a few young birds too. Noticed one pair of young, younger, than the "almost adult" noted before, i.e. unmistakably almost pure gray, the top of which was deep HT in H+R, just like adults, same round.

November 29, 1955
Zoo, Lima.

One of these birds, probably young, but in almost complete adult plumage, with only a very slight trace of the white nuptial hood. Did a lot of interjecting, with the Bolivian Quills, always the aggressor.

Did renew long calls, which I didn't see too awfully well, but did manage to catch a few points. Generally like those observed at Salinas. Beginning high, with rapid notes, these might be transcribed as "Tukatuka..." but definitely not a rapid rattle like that of Sibbaldus. Then followed 3 real long call notes, descending in pitch, as posture became gradually lower. Sometimes this alone sometimes multiplied into real ky, but this was "weak" looking, as before. Certainly much less conspicuous than the k's of the Laughing Gull or Franklin's Gull. Once this was followed by T with T note.

Once saw bird go up into high B open a bit, but bill rapidly, as during the "Tukatuka..." call, but without uttering a sound. This was presumably low-intensity.

Occasional adult T/N from relaxed posture.

I don't think that I can tell a single T note from a single T/N.

Once or twice saw T from H. Primarily begging for food.

Then a most peculiar and elusively aggressive performance. Bird would go down into H, or semi-H, F, or semi-F, + definite and
extreme R, and then rush forward to attack one of the Belcher's gulls. Sometimes this attack accompanied by UCN.

This R was thus obviously hostile. It should be noted, incidentally, that the extreme "typical" R postures were relatively rare. The typical R posture common at the beginning of the performance, and the postures with neck stretched diagonally upward or in approximately straight forward were common just before the delivery of the actual blow (which often took the form of an upward jab). Some of these postures with R could almost be considered un-ritualized pre-attack postures, except for the R, and it is not surprising, therefore, that a few un-ritualized attacks also occurred.

November 20, 1955
300, Lima

A single bird of this species. Occasional dispute when another gull came near, but also a lot of threatening toward human spectators who threw things at him. This latter fact may possibly have changed the orientation of the birds' displays, but I don't think so. In any case, the form of these displays shown to other birds was the same as that of the same displays shown toward human beings.

One brief V performed after L.C. performance. Appeared to be rather aggresive.

Quite a number of what appeared to be mumble FB or UCN notes. Brief "Kree", accompanied by momentary retraction of head & neck, into a posture reminiscent of H. Directed toward humans.
Also did most conspicuous R's when moving to attack other gulls. Would rush forward in H, or H with neck slightly extended forward and slightly upward, (sometimes approximating pre-attack posture of the Grey Gull in the same enclosure). Sometimes R when giving LCN or FB, sets me semi-H, directed toward me. All this definitely proves that R is aggressive. But R may also be a "pre-flight" or "pre-movement" unit, more also, if in Spring I still observed in Virginia) This is suggested by the R's when going to feed - I couldn't see any overt hostility in these circumstances.


November 21, 1955,
Zoo, Kansas.

Bird much less active today. Only a few points of interest: Gave single notes, LCN and/or FB, in usual casual LCN posture with extreme R (see drawing).

Gave a whole series of LCN, (notes as close together as during L.C. itself), all approximating same pitch in definite O posture ("inverted arch"), but with tail not raised. Also gave complete L.C. (also "inverted arch") without tail raised, (but body not very oblique, or breast not raised very much). Also gave at least O part of L.C. in extreme O without inverted "arch.

Definite Vagan, (pretty aggroemive), again after the completion of an L.C. performance. Obviously a low-intensity pattern.
These birds weren’t my actual coterie.

One bird did G (usual land LCVI posture) → HD → 0

Also, one bird did long front of Chelung!! During dispute with Help Gull. Long neck, stretched forward, bill open, head & bill slanted diagonally downward—bust slightly (see drawing). Bird sat down, flat on torso, during most of the Chelung. Made rhythmic head movements like other gulls. Chelung, but I couldn’t hear any sound!! This Chelung appeared during dispute with Help Gull, when the

Is the fact that this birds posture was reminiscent of the M posture of other gulls significant?

It is really most peculiar that these young birds show so many displays. Much more than any juveniles I ever studied in the wild. (And the juveniles of this species were particularly dull—I never heard or saw them give a single display, not even an LCVI.)

The greater activity of the captive juveniles is probably due to their "novelty." They must have lost much of their fear of adults. And also of course, their 3 birds are thrown together much more than most juveniles would be in the wild.

November 21, 1955.
Zoo, Lima

These caged birds are behaving in exactly the same way, apparently as they would in the wild.

Only thing of interest I noted was an "M" posture very reminiscent of the LCVI posture of gulls (see drawing). This may well be significant in connection with the hypothethical coalescence of part of an ancestral L.C. performance with Chelung. This "M" posture of Lima was not accompanied by anything like L.C. movements.
domincanus

November 21, 1935,
Zoo, Lima

Didn't pay much attention to this bird, but it was not mature. Long dispute with gnu Belcher's Gull.

Did pronounce M, apparently in purely hostile situation. Sound & posture just like corresponding patterns of Henning Gull.

Chelung itself was common (in same dispute as M, but I didn't catch the chronological relationship of the 2 patterns). Chelung was apparently silent and I was no more than 10 yds away, and the gnu was fairly silent at the time.

We saw something that might have been related to "gran pulling." Pulled at gnu, then pulled it up—after Chelung.

dominicanus

November 22, 1935,
Zoo, Lima

I am afraid that some of the stuff I have been writing about this bird was a trifle inaccurate. About M. This bird spent much of the afternoon doing M, then going to apparent nest-site, sitting down, with rear part of the body raised, legs bent, some ca, moving its feet up and down. All this looked much like auto-cholincous m-lo-behavior. This impression accentuated by the fact that the bird also, from time to time, when off nest as well as on, pulled up m on (down). When pulled up away from nest, this m was almost always carried to the nest-site. Deposited straight forward. Once deposited with movements very much like Chelung (identical apparently).

There are only 2 things that made me think that there was possibly an "undue" amount of hostility involved. The performance was most intense when there was an "intruder" (e.g. Night Heron or Belcher's gull) in the doorway of the cave in which the nest-site & the bird...
were located. Also it was quite noticeable that there was no sideways building.

Of course all must have a hostile component, but I still don't know if the MS of the Herring Gull is particularly similar in its circumstances to that of the Kelp Gull or not.

The loud and mutual "begging" with giv, Goeler's Gull.

Latter presumably interested in food, the former in sex. The T movement of note appeared to be identical with that of the Herring Gull.

November 22, 1955
Zoo, Lima

Wica

Fish-carrying & gut standing, gave repeated loud chat's with gutting cages of it; eventually swallowed fish.

November 22, 1955
Zoo, Lima

Lucheni

Typical level of the LC: LCN → "pseudo-AlC" before attacks (all three notes given from "typical" LCN posture, i.e. semi-0, without any raising of the carpi). This suggests that the "AlC" type sounds are higher in intensity and/or more aggressive than "typical LCN" sounds. I rather imagine that they are higher intensity (some typical LCN's in semi-0 with raising but without any of aggressiveness).

Preid gave complete LC.

With LCN posture.

Notes of LC might be transcribed as "Keryah keryah..."

Repeated grunts at bananal peel, not very aggressive looking after HO-O performance.
The bird who was FB from Hello Gulf, was pecked twice by another. Each time started by going into extreme Aux V, hill very high as in adult, the HE, HE single movement. In case I forget to note it, HE of adult, an also, almost, always, at least, single movement too.

November 23, 1955

sincerely

Zoo, Lucia

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Sequence: relaxed posture + R → F → O → F. (This F before O has been noted before, probably good evidence that O & F are quite separate patterns)

Notes on the physical form of chokung displays. Tail not spread during chokung. Wings not held out as far as wings as they are during way o & F. Belly feathers somewhat fluttered, but not going in & out rhythmically. In at least one case, head moved slightly from side to side about this much.

No particular foot movements

Once FB note + HB, from V with hill pointed up.

Notes on the physical form of the Oblique + Forward. Tail is definitely spread during most high intensity performances. Caudal spots are usually held way out, so much so that the wing-tips are usually quite widely separated. No more of any tail swaying.

Position of tail & wing-tips
H+R note after escape from pelican

H+T movement & note after escape from pelican

Several interesting sequences of displays. 0-T-T-T-rush in H+R+L&N at opponent (e.g. Belcher's Gull) A-T-rush in H+R at opponent. H+R would certainly appear to be aggressive.

Note on the form of the L.C. performance of this bird. Two points to be made: 1. this bird tends to do T after real L.c. 2. this and other birds don't seem to have much in the way of a real L. The neck is lowered and turned during the course of the L.C. beginning as soon as the rapid initial note is completed, but this seems to be more a "subsidizing" of the C than anything else.

Diagram of L.C.

Silent O'pecking, & slight gape, after call tike.

Introductory "Kuh" brief "Kuh"
Hundreds of moderate along the rocks line. Many with very white heads. Almost all with almost white heads. (Some latter may be in complete nuptial plumage so all I know — there may be considerable variation). The birds are so active that I hardly know where to begin.

To Uncle T from H's seat H. Usually Sit in 

looks sort like that of other gulls. These similar however, much varying from a picture (moderate — slightly curv.), often Sit in left P's preening is a pre-cop pattern (although I haven't seen one cop yet). This latter is peculiar in form.

Can confirm that the beginning of 0 is very high — absolutely vertical in most high intensity cases — leaving backward in some cases when an opponent is above, behind the deploying bird.

Note: Nov 26. This is quite surprising.

common, perhaps even the "usual" form of high intensity.
modestus, Nov. 24, 1955, II.

Notice again how frequently late stages of O and L are accompanied by HF. At least when water is present or the cause of the performance HF away from water. This certainly one of the striking features of the L.C. performance of these species.

I think my diagram of L.C. in yesterday's notes was wrong—or, at least, it doesn't conform to what these lizards are doing. The complete L.C. in these lizards appears to be quite standardized:

- Dribble: club, club, club, club
- L.C. proper, without the club club club, club
- Relaxation

Dribble club club club club club club... might be even better.

Speed of call varies tremendously, sometimes very rapid, sometimes quite slow.

One thing is obvious. Some of these complete L.C.'s are quite quick from O, the lute relaxing into semi-alert posture or even completely relaxed posture immediately after last note. Here, O's are always high, no sign of any lowering during call. Very similar are complete L.C.'s in high O, followed immediately by V. Here are some L's, no lowering, shortening of neck, during some L.C.'s of last this rley no means inevitable, and I am again impressed by the "inertialized" look of these L's, the way in which they do not look like "full," "separate," "patterns. They still appear to be no more than a "subdividing," (although, of course, it is likely that they are slightly more than that—or else all O's would be expected to decline through L's. An L's less aggressive. Aren't the relations frequently accompanied by HF's?? I think so provisionally.)

The fact that this L.C. is bipartite, i.e., a series of rapid notes followed by a single long-churn one, very reminiscent of the Rabbit -> Mistletoe of Sarcites.

L.C.'s are remarkably frequent. Here is a steady flow within this group given from an "O-L.C. picture, quite definable."

Dribble, not upright like I have seen...

Diag. L.C.N.
Some, but by no means all, of the L.C. performances are followed by a T movement & note. Usually, I think, more like T from U than like T from H. That T note itself appears to be much as described elsewhere, without the undertone of rattle.

This latter, in fact, appears to be true of all the complete L.C. notes. No rattle undertone during ejection part. But the rattle tone is certainly present in most of the single LCN's.

Can this rattle undertone be considered, in part at least, as a permanently juvenile character? It is really somewhat reminiscent of the "neolines" of the B, or LCN's of many species.

This is another L.C. portion in addition to the one following C.

This is much more extreme than the latter. Just like L or M portions of the Laughing & Franklin's Gulls. Some of these turns of L's are probably M. Others may conceivably be somewhat different. More aggressively e.g. by the attacking bird, before or after attack. These, in turn, are certainly accompanied by a soft, rattling long-drawn "Wahahah", which may well be homologous with the M notes of other species, i.e. a soft, muffled version of the "basic LCN" (adistincted from the actual LCN shown by those adults — lacks rattle tone).

The whole L.C. performance of this species is surprisingly like the L.C. of the African gulls. It is beginning to look much as if some form of C-L-T performance was the primitive ancestral form of the L.C., I have seen a lot of U's, but haven't paid too much attention to them. Still, it is obvious that a rather surprising proportion of the U's seen are rather long, or at least more aggressive than "intermediate." This is perhaps particularly true of the U's provoked or elicited toward the mate, even the U's by A's.
November 25, 1935
Antofagasta Bay.

Mouths of mouth quite bright red and very conspicuous during both
at the, and close to the.

Watching several cases of small pair of sexual behaviors.
On occasion, O approaching a L, the landed some distance away
from him, but then approached him on foot. It was not often that the usual "line"
was repeated. I kept to other levels as he went by. Notice that O was
almost black. Each time, O was certainly not due to the fact that
the two were above a bilaterally bent. Then approached O in "silent M" posture.

The stood in U, then mutual O (without much subsequent L) - U-HF-U-HF-
U-HF. A lot of U parading. That is, levels walked around, the more than
the usual "line" type U, with much HFing, occasional pre-cop. move-
ments (not conspicuous - very little actualized of at all). Occasionally O per-
formance. Quite a lot of running around in "silent M". Then finally stood in
U a moment, relaxed.

I am not sure, during the above incident, whether how many of any
of the O's were followed by L, and if immediately followed by a "line."
Also watched copulation. The cop. performance was essentially like that
of other quills, but had its own peculiarities. Mutual T, mostly from U, or from
from H or semi-H, but both levels died some from both postures. Much walking
around one another. The T's themselves were done when the levels were very close
together, occasionally seemed to be trying to get under O. I have seen this in
other species, such as Franklin's). Occasionally a "silent M" also, some-
times accompanied by T's. Sometimes make a slight curve of their.
Then the & put her head to ground, in a semi-choked or Gort posture, briefly regenerated with choking movements, the quickly swallowed lunch food. Both birds went back to their mutual begging as before. Finally went down into a posture (I don't know whether with call or without; bell open, of course). Begging & tried to eat, but I don't think the succeeded. I probably swallowed food back too quickly. Back to begging as before. Then & mounted. Capitally much like that of other gulls. Continued to continue until most of the time. On her back, a bill closed, apparently no Cop. Call. Cop appears to be successful 3 times. Post-cop display, mutual V-H-V-H-F. V-G-V-H-V-H-F-V. Then back to begging again.

One thing I have noted about the begging, both in the above and other incidents, especially the begging with H: It is accompanied by very conspicuous "nervous" side to side head-twitching.

This approach to the partner in conspicuous "silent H" posture is extremely common -- almost inevitable. Might appear to be an "approach" pattern -- almost a form of H. An attempt to approach without provoking hostility.

Have seen at least one case of C followed by T in an apparently purely amicable situation.

Most flying birds give usual "rattle" call in flight. Our birds, however, flying over me, gave pure "Kor" quiet like typical large terns. A standard rattle, low-intensity form of T, & rushes off to attack other birds, makes that typical vigorous, assaultive T.

One point must be borne in mind when it comes to writing up the general review of Laridae in a whole: The fact that the Gray gulls bear essentially the same hostilite behavior as the atterbea gulls might suggest that they too may have given rise to their own group of "terns." It might not be unusual to point the repeated evolution of white head vs dark body or dark head vs light body. Each may have only evolved once
Use of mutual begging followed by, and alternating with, 3 quite unsuccessful copulation attempts. The begging of both p.f. was characterized by the fact that they both alternated periods of T from H and T from V. This was particularly conspicuous in the case of the F. Both also LC N (sometimes from V), and several silent M's.

One O followed by definite L. Their drawing of L is pretty good. The bull was closed by the time the birds got down into extreme L. C. was already well extreme L. gave several LC N's in L. It is possible that the second part of L C might be considered to have several notes rather than one.

Another case of P-T in apparently quiescent circumstances. Have seen one bird do repeated LC N (4 times, C. positive) - > extreme high O + L C. The first part of the performance, with its characteristic turning of the head toward the Festival, is slightly reminiscent of the Little Gull.

Useless cops. Three cases of mutual V.

Peculiar performance. One bird levels apparently alone. Immediately goes into extreme M, persistent, extreme s. regular side to side head turning. M fruit silent, then a few M notes uttered, then silent again. Head turning continues all the time. Then another level levels. Does P-L: silent M - O - V. First level continues as before, except that 4 times: pecks ground violently (each peck 8-10), silent, headhack movement, each peck is really a short headhack stroke), from M. 

Each peck or level of pecks, followed by extreme swallowing movements. Then second bird moves on and fruit releases. How this purely hostile? Or, possibly connected with pairing???

Bunch of birds flying above. A number of LC's and LC N's. Then one bird gives complete LC, continuing flight with normal wing-beats, without any trace of ritualized posture or movements. Just struts and feeds forward a little (perhaps slightly upward at same time, but no trace of even a mini-O). Didn't even accelerate flight.
modestus, Nov. 25, 1955, IV.


Mutual U.

SS = one side-to-side turning.

Inside of mouth is pink or salmon-colored.

Usual LCN posture in design. almost no stretching of neck.

Walking a or making circular flights during pairing. Quite extreme.

Several times circled our general area where I remained, also made large irregular circles in all directions. Rapid flight. Quite the fastest I have seen.

but with normal wing beats. An occasional slight trace of emaciation.

One shallow, but long glide.

but from an unrotated posture, only stretching the neck straight forward a little. One definite choral

another flying bird, in an apparent case of distraction, for about 20 yrs.

Once the q flew up after him, repaired him when he landed, but I didn't follow his behavior in flight.

Didn't count mutual displays on ground between the above flights.

but they were of the usual sort. Just U+HF+SS, etc. Then walking around with pullovers, fed the q SS's. Once or twice of M (probably intact). Then q

did O - night I, with no trace of T. Then more of "U complex", i.e. U+HF+SS.

10:10 U-V-U-LCN-C-T-U-V-U-LCN-LCN-LCN-V. Volumeing retreat -

V before retreat - Volumeing retreat. U before attack - Vatpt attack. U before attack -

Vatpt attack. C before retreat. DVolumeing retreat - LCN-U-V-LCN M is before attack - Vatpt attack - V before attack - U+HF after attack - before attack - U before attack - U+HF after attack.
The call noted in preceding line, was done by both birds of a pair, half asleep, when a stranger approached them. Probably a very low-intensity form of chattering.

Birds were already sitting before it began.

The birds quietly put their bills to ground, made brief, slight, but unmistakable up-and-down ch ch movements. Didn't hear any sound.

Add one pattern to pairing sequence. Walking in flight posture or just a gentle movement when standing still. Occurs during "V complex" with or without accompanying M's.

M. Agg V after attack. Before attack - V or T. T V (as before).
Agg V + HT after attack - V M (all patterns match but just M or silent M's)
V. V - S V. V. T, V, Agg V before attack - Grit after attack - V + S.

Silent M in the usual way to approach partner or potential partner.

Been watching a copulation. A silent most of the time, including the periods when he was lowering his tail and making actual copulation contact. But, he opened his bill and I am almost certain it was a cop call when one of the g started to struggle or try to run away. Bill opened quite slightly, kept open, no OCB. I think sound was a very soft "uh huh, huh, huh, huh..."

I'm running, moderately slowly, with pauses, after he is retreating. He does V - M - V - M - V - GoT - V - M - V during his advance. Both OCB & T finally do V + HT when g lets him catch up. Both males start to peep.

Can see absolutely no reason why some calls gave you "Keeow" to "Meow" when flying and other birds gave "Keeow" with "rattle undertone." Only possible explanation - and these seem to be extremely remote - is that "rattle" isn't a characteristic of young birds, or that the "Keeow" is motivated by relative strong escape.

Apparently no landing call.

Birds after flight with neighbor, walks toward partner in M, then...
stops some distance away, stands in M, still to ground, (head is perhaps slightly bent on neck—pointing, more strongly downward than neck—this not "pure" M posture), utters "uh huh huh" whose ah oo ah ah ah huh huh huh..."sort of hiss/sis. This appeared to be exactly the same as the mixture of M + Ch notes uttered by such species as Franklini's Gull during low-intensity chalking. DE, the M note in this species too, appears to be a "low-intensity form of the"

(Thus the sound was very similar or even identical with the Cop call I just heard.)

I wouldn't be at all surprised if the "running in Gos" pattern occurring during passing were a form of running in M. Gos is often from a semi-M posture and the two patterns run to interpret completely.

The common approach to posture on foot is actually M - V + HF - (U) - piece. The following looks completely relaxed, but it often follows immediately after the V + HF, and is often followed immediately by other displays (e.g., Tail) so it is probably not "coincidental" or "purely autochthonous."

This species, with its long wings, looks almost as tern-like as rice in flight.

Have heard one L.C. on ground with an extra syllable in the first part

\[ \text{comm.} \quad 0.01-1.2-2.2 \text{ LN. Cl } \text{ "stands for L posture part of L.C. performance. Often silent at end and thus cannot be told from silent M. Must be stilled that earlier L and M posture are literally identical. \text{V} \text{ before attack} - V + HF \text{ after attack. V - adj. V} - M + M note before attack. \text{Vafter attack M} \text{- C. Adj. V} \text{ after attack - M before attack - V. U. V. V. V. V before attack - Vafter attack

Another population as before, again strong gape cop call when & moved. But this time range of this Cop call, notes were given with bill absolutely closed.

\[ \text{M + M note - V + HF - V} \text{ & V + HF - V}

But flying by during panic caused by a boys walking through, group gave M note in flight, in unusual neck stretched slightly forward posture.
I think that all the more aggressive forms of M, with or without M note, tend to be more head-on and pointed slightly more strong, direct, and rapid than the neck.

**Initial attack -** M note **during attack -** U note in attack - U-LN-LC
**M note during attack -** C note **in attack -** U-SS-U-LN-U Ch-Ch. U-M, U note.


Many of the "attacking" included in the above counts are no more than faint stirs toward an opponent. This is particularly true, perhaps, of the M note before attack. This species, incidentally, seems to be particularly prone toward such rushes.

**Flying 12:20. Back 3:50.**


Actually, I seem to be using "ss" for a "front" of node-to-node turning.

Not just for one motion to each node.

Aerial L-N with "rattle" is "more intense" might be transferred as "terrorizing"

The impulsive nature of the L-N might be significant in connection with the "L-N homologues" of other birds. I don't see any correspondence between the various parts in circumstances or premeditated motivation.

A more rapid aerial L-N with "rattle" could be transferred as "terrorizing".

Acting, many of the birds uttering L-N's with "rattle" appear to be fully adult in external appearance.

Although many of the "plain" U's appear to be more active on the upper side,

I don't think I have everything like a real "air U", i.e. head pointed upward.

It is becoming fairly obvious that the L.C. performance is relatively much slower during M.C.'s between males than during the low-intensity disputes I have been counting.

Peculiar orientation of L.C., apparently noted both O. But, at the end of the male turned away from the male, to look over her shoulder toward him.

Good start of a feeble performance from M. repeatedly. Intervals in M's silent M - M last - silent M - PRC - silent M - PRC - silent M - M last - silent M - M last as it continues. M suddenly increases, and circles up into food immediately V-T-V-T-V.Quiet V-HE-V-HE-V. Then M continues to wag steadily, but his posture becomes more and more like H. and continues to wag too, but she tends to keep m between T's. A doe one M, several violent, rapid, and nervous preening movements interspersed with his T's. Doe one preen then both began to preen in normal fashion together.

I noticed that back of the head was thrown back upright to horizontal when T's from U. But still not pointed back very far. Hardly more than vertical - quite that Explains head in neck.

M note can be twice reduced as long drawn, soft, "uhhuhhhu", "Waaaaah." 

Now that I mention it, the M note and the second part of the L.C. are very similar, but the latter is louder, more "wailing" - "Waaaaahahahahah." with a tendency to...

Peculiar L.C. performance. Plan A unusual, then an extra "Waaaaahahahah..." note as week was slightly lowered. This lowering was a chief peculiar as the back of the head went down first, rather giving the impression of an
semi-inverted arch as m F. But the lowering was relatively slight
at end of this peculiar lowering.

Have been watching one adult bird, wi definitely incomplete nuptial plumage. Twice did normal L.C. O alone, followed immediately by two notes, relating long "roll" sounds (quite unlike brief notes of first part of L.C.).
First of two "additional" notes in pure O, second in almost pure O—both like a little shorter, back of head, slightly covered, i.e., perhaps a trace of T.
In connection with the generally very atypical nature of the L.C. call itself, I should add that I have never heard either the first or second part alone.

That same bird in incomplete nuptial plumage is back. Again has given several L.C.'s with 3 additional notes. Exactly same particulars as before, this is definitely an individual peculiarity. Is it connected with incomplete plumage?

Comm. area:

Beak attack — V.+T. before attack — V.+T. after attack

Beak attack before escape

Part of my counts of low intensity hostility have been made on the shrews, part on an absolutely flat fields, lack of vegetation, by water. There is at least one great difference in the hostility shown on these 2 sites. Attacks were relatively common in the fields, relatively uncommon on the shrews. Is this due to the very rough + uneven surface of the shrews?

+ FB from H. The Trametes can be transcribed as "Wuh", "Wuk", . . .
It was a definite impression that the Trametes sometimes occurring after L.C.'s are sometimes more like long versions of second part of L.C. than are other ("bugging") notes. But this is probably only occasional.
modestly, Nov. 25, 1935, X.

Apparantly another case of a bird giving complete L.C. vii air from an unneutralized (really, I suppose, slightly neutralized) neck-stretched-forward posture.

It is actually not infrequent for a flying bird to give 2-3-4 L.C.'s in front lands. But the majority of birds are silent. And these notes are not usually given during the actual landing itself. So this still isn't a landing call.

From the accompanying pictures, and the decline of the sound toward the end of the L.C., one might assume that the first part of the L.C. is higher in intensity than the last part. Is this true? Or is there just a difference in relative appearances? Is it safe to assume that O is higher in intensity than L? Given the photographs showing L.C.'s are far more extreme than L.C.'s in the same circumstances — on the average — but could this conceivably be due to the fact that L is on a higher intensity level and never appears in a high intensity form in such circumstances (like low-intensity L during communal areas and such brief disputes)?

The usual T and M sounds ("uh" or "wuh" and "oooah") are not dissimilar in quality. The T sounds almost like my M. This means that the T note of this species is relatively more muffled than the corresponding note of other species I have studied.

Leaving 4:50

Time spent watching comm. area: 9:40-10:10, 3:30-5:00, 5:30-6:30

Time spent watching comm. area on field: 10:40-12:20

Went back at night (after 10:00 p.m.) to see if birds were still there.

They were, at least several hundred on the trees. (probably others on roosting clusters — could be occasional calls for off.)

Thus, I don't know if these birds have occupied a colony or not.
reaction (must check on this). Kick after attack. LKN-LKN-LKN. Ending 8:30 a.m.

Outside of bill, eye, eye-ring, a foot appears to be perfectly black, even at short distances. White eyelids still noticeable in even whitest heads.

Either I'm getting more cautious — or else this species is even more careless about orientating its body displays (particularly LKN's - but also LK, performed as S's) than most gulls. There are an awful lot of them which leave me baffled, having no idea what provoked them or to whom they are addressed.

Goes LKN-M-LKN-M-LKN-M. & flies off on escape.

Waiting another level, adult in incomplete moulting stage, standing on isolated rock (no other birds on ground nearby), giving repeated LKN's from visual posture (one from a semi-ND) apparently directed toward flying birds. Gave 21 of these, then eventually flew up, circled, and flew off to level about 400

mile away. Gave constant LKN's in flight. Gave this LKN's on ground and in air at least a "rattle under tone". This couldn't possibly be connected with pairing could it?? The behavior of this level looked rather like an "invitation."

Noticeable how few attacks there are by males on females — at least at this stage — I think they do occasionally occur, however.

Vocal & moulting videlicet quiet slightly downward during some aural

LKNs

Bill looks very long
Mouth opened very widely

There may be something like "pointing the bill toward the partner". It has just struck me that I have seen males turn to look at one another, usually in V, sometimes stretching the neck forward a little so as to move the head slightly nearer the partner, quite frequently. Probably not associated with any particular situation form of activity or sexuality.

Haven't been listening to our male's Trouts & M notes. Very remin-

iscient of Franklin's Gull
One Oct. Call, at least, noticeably slower in rhythm than clicking. Have seen Pti. m. incomplete numerical phrasing give repeated M notes from a V" particle. Because attentive curved during the emission of the next itself.

Rather long tail neck as in almost all small
the "crest" display.


Cl. Q, V+HF. 2 Y-T-T-T from H, Q, V, O V+HF & O.


 LN V+HF V-T-T-T V-T-T-O D U Q M-V+HF M-O+HF U+HF U-
SS V+HF U-V U+HF Q V-Ph Y V+HF V-escape V+HF V-escape U-

Reduction attacks on neighbors. V, O+HF M+V+HF U+HF

Vafire attack Vafire attack Vafire attack Vafire attack Vafire attack Vafire attack Vafire attack Vafire attack Vafire attack Vafire attack Vafire attack Vafire attack Vafire attack.

Interesting case of gaining behavior. A stork irid. on a G. after V-L.

Then both go through "V compiler", mostly gent plans V's. then lots of T's inter-
mingled with the V's. Then all down into M+M note. Two interesting things
about this. One, 2 made repeated reduction attacks on nearby storks, after he
had joined the V, interspersed with lots of V's & T's. Two. 2 neglected diettes once
while V was off attacking neighbors, swallowed food back immediately.
Another complete L.C. by flying birds. Flying near me, and I may have been the stimulus. Again quite with neck stretched forward, Cutatched quite a bit in this case.

Have quite seen & found some distance from M - note, at which her mate came running to join with.

Tried quizzing again L.C. as it comes in - neck very arched, gliding very fast. This was a quite conspicuous performance.

Almost all birds asleep by 10:30-11:00.

Have seen a few cases of attempted rape. Don't know if by masturbation.
without any sign of actual repositioning. Have again seen 0A's mount straight from it (this may be the usual procedure after all!).

But add another full category to my general classification of calls in gulls and group. Add "fragmented" to "single note" "low-intensity rhythm of repeated note," and "high intensity rhythm of repeated note," "fragmented" will take one of the Alarm Calls, etc.

Read flying bird give "sattle" call, then without any perceptible break, give a rather long drawn "Wah" note, sattle reminiscent of Mute. They have been calling notes, this loud banded, short, and went straight into M.

One population included 4 separate contacts of the claves!! This was also the first population in which I noticed the skulking down at the q when she became satter.

The HF movement is really more complex than a simple sideways jek. Often includes a downward pointing of the beck as the flapping movement occurs. As the eye sees it, and the hill has come back to its previous lurkliely horizontal position by the time the flapping movement is completed. I think that a similar, downward swing was also characteristic of the HF of Mute (and possibly also of Belcheri). Many characteristic of way forms.

Learning 1:10 p.m. Back 5:20. One, all up. Jek, and I can't get data because of high tide.

Have seen one extreme i, after 0, in which the hill was inclined slightly upward, thus producing an approximation of an F. But this is the only case seen so far, and the precise itself was much less tense than the "i" of fuligineus.

Took data way to field 5:50.

Common field CM LSF 1/16-1/8-1/16-1/16 0g Mute attack - Baby attack 1/16-1/16-1/16 0g Mute attack - Baby attack, 0g Mute attack - Baby attack, 0g Mute attack - Baby attack, 0g Mute attack - Baby attack.

Voluming retreat. 0g Mute attack - Baby attack.
TTt.

U'T

M


\Delta \Delta \Delta \Delta U+HF, Q. q, U+HF, q+HF, q+HF, q+HF-0, q+HF, q+HF-

Agains several examples of T mounting from H, after he had done way T's from M, and run around the Q several times in M, with or without T's as he ran. One example of a Q giving general T's after mounting, before beginning copulation.

Watching influence to copulation i.e. one pair of stood in semi-V along without T's but not very frequently. A running around one in M + H, along many level can T's. Then just paused back and forth behind Q, just coming up level with her on each side. The T's flew furiously and sometimes, front of the Q, there would be some apparent churring, a birds would nibble at one another's bills, in semi-V or V position without T. This is judged as development of the usual FB of gulls, but it looked nattier unlike any I have seen before.

A few additional points noted during this incident. 1. When one partners runs around the other, the running bird is almost always in H or M, and I have seen this in lots of other pairs also. and there M's and H's intergrade constantly - you could not really draw a line between the 2 patterns of they only occurred in such circumstances. 2. Again impressed with the fact that there are two morphological types of T. One from H and M, full front part of head being raised only slightly. A second from V, in which the back of the head is down, a back now to the shoulders and the bill points toward the vertex.

...
The physical form (i.e., the bill is never thrown much past the vertical)

There is still a third type of L.C., in other circumstances, after B.B.,
L.C. Then like the T from M to H. A relatively slight movement, the bill
being thrown upward, and the back of the head going down and forward, not
backward. The bill seldom reaches the vertical, and almost never gains be-
yond it. (The T's from L. incidnetally are just like the T's from either M post-
ure.)

Another complete aerial L.C. glide by bird flying above me. As aerial
L.C. reaction toward a "potential predator?"

I have seen only two patterns that look as if they might be possibly connected
with actual pair-formation. One is the military birds opening LCN's toward flying
birds. The other has only been seen in this field. Occasionally rotated level running
rapidly through the group, M, will go into V and H to with aerial bird, it
pursue. Have never been able to follow these birds further, however - they usu-
ally fly away.

Free conclusive case! Stalking alone. Does LCN-LCN-LCN-LCN-O
V-LCN-LCN (note one of these LCN's may have been slightly "softer" than usual
I.e., transitional to M note). Then flies up, flies 300 yards away, lands in new-
place. Here does M note vi LCN posture - M note vi LCN posture - M note vi LCN
posture. At this stage, LCN comes running to him in M, and they both perform
mutual V++E++, then begins mutual T++E++. This is a good example of LCN O
and M note vi LCN posture apparently due to threatened prey alone.

Another equally convincing case of the same sort. Stalking alone. Does
LCN-LCN vi M-LCN-LCN-LCN-LCN-LCN-LCN-LCN-LCN-LCN. Flies up and lands in another
spot several hundred yards away. Does M note LCN-LCN-O-L-M
Then rises up to clear vi . Mutual display, given, relax.

Complete aerial LCN glide by bird coming into level态势 far from
me. (These may well be a general tendency for a glide to accompany aerial L.C.,
but it probably is not critical. Not only do some aerial L.C. occur without
this, but all the cases I have seen have been by birds flying fairly low-
over the ground, and it may be purely a matter of aerodynamics. At the end, several have been accompanied by the same slight—moderate forward inclining of the head-neck—horizontal head.

Ten or fifteen Game 5:03 Donzello was the prey embryo.

Light patterns in this game. Game starts to break up, twenty times, lands, cycle back over field, then off again in another pattern even before they start to land. This goes on for at least 10 minutes. Finally by 7:35, several hundred of them have landed in a flock on water, where they seem to be relaxing, and a few have landed on the rocks and are relaxing too.

Several of others, however, from flocks in our circle, fly high in air, and then start to drift northwestward, with many interrupted periods of circling, and at least one silent Game very high in air. These leads me presently going to a colony.

It was very noticeable that each time the silent Game started to break up there was a sudden burst of LCA's (on the underside) by the leads. I have also heard the same notes on twice other games.

On land, flying rather high, far away from me, gave a complete aerial LCA during one of the periods of semi-relaxation. The aerial pattern—with beating wings

One bird flew up when the others first panicked, but joined the others in their escape. flew about thirty yards, very fast, with deep wing beats and moderately shallow swoop, with beating wings, and then soared upward with no beating wings. Three birds in line for or five minutes, long Ebens, plains. "Kabon" "Kabon "Kabon" notes, during the accelerated horizontal flight, and the subsequent swoop. In other words, the pattern was just like the swoop & tic — rear pattern of the Ring-tailed gull.

Anne spent watching camp area on Thurs., 4:30 - 6:00

in field: 9:35 - 1:15, 4:30 - 7:30.
November 20, 1965,
Auto-fogsta Bay.

Arrive field 2:05 a.m.

[Handwritten text containing storm patterns and weather conditions]

Noticeably, how often both members of a pair will run along in 
MT, get 
her, either side by side or one following the other. In some cases, this appears to 
be a form of 

surprise; yet, with the other following. In other cases, (notably the majority), both birds appear to be slightly aggressive, often scattering 

this aggressiveness toward neighbors.

[Handwritten text with additional风暴 patterns and weather notes]
This lump may be an "indication" of reynolds 2 - as it becomes larger, rounder and more swollen before actual reynolds - but it often occurs without any actual lump. I think it is quite independent of reynolds.

There is a fairly definite line marking the end of the subcutaneous in the usual complete (vertical) pinnage.

The eye looks quite large.

The shape of neck are light grey and tend to fade into the head is variable. - the hood. -

Birds flying high with tail 2-3 to 6-8 on ground. Beginning each time on semi-l, semi-l then going up into extieme l, then coming down into semi-l (semi-l shown by L. The initial semi-l semi-l was once accompanied by L.N.

Care little "rattle." This appeared to be one of the briefest "rattling." I have often seen it. Could not see the "rattling." I have often seen "rattling." I have often seen "rattling." I have often seen "rattling.

Heard miniature bird (brown or secondary feathers, and faint complete hood) gave 0.4 semi-l, just like that of adults.

Almost all the miniature birds have been seen have been observed with adult 2-3, and miniature 2-3 with adult 2-3.
Nursery attack - Not attacked 
Before attack - After attack 
Nursery attack - Not attacked 
Victim attacked 
Victim attacked 
Victim attacked - Victim being attacked.

This I may find my self on top of a mountain in the very earliest stages of forming a tent, with no sense of a little birdy, but certainly low-ground inside. The 566 birds were first released, but most of the time in little pockets near the oups. The head looks relatively large, obviously used (as long as in some near). I also get from note to note. Occasional bright. Does not come from up here, but becomes slightly curved, head moved forward, with the tail of each note, at end of the birds flying overhead. One did 3 to 4 flying birds. Did complete 1 C. with O-D-L about six times toward flying birds. Occasionally would rush off to attack other birds, quite vigorously (by far the most active note of attack I have ever seen, always returning, over or under to his "station" on the block. Occasionally flying off on scissor flight. Occasionally attacking neighbors on another bird, and then eyes off on circular flight. Many times (during these circular flight) with his "station" during these circular flight). Always returning to almost same spot. To remain here.

This I was surprised by, twice (I don't know which time). I didn't see the first approach. The second approach, at least the last stages of it on foot. Occasional by James O-U. The second was O-L-M+HF-M-MSS+MSS-MSS+M-T-T-M-T-M-T-M-M (all the trails from some M, read 4 picture). All the second was V, plus across HF. 

The second time the V flew away, she landed about 200 yards away. The drizzle started, giving occasional lull notes. Then she was gone.
another 5, approaching on foot. He did O, stood a few feet away, and then stood on his head and turned. The other 5, however, did O-V-T-U-V-T-M-T-T-M-M.

At this time, the 5's were accompanied by much loud singing. He went to the tree, where the 5's were and didn't return during the period 5 continued watching the area.

Meanwhile, the first 5 was continuing his behavior as before, but not now trying to be appeased, decided to do some walking himself. He went down a few feet away, then started to walk and run through the meadow, closely following quite closely to a number of pears, and came particularly close to the females of these pears. After running and walking was done, he returned. When he reached another particularly desirable female, he went up into C and gave her a (perhaps territorial) and then HF. No response from the 5's. He went on two more "singing" trips, but each trip was ended by attacks from an enraged neighbor and an outraged neighborhood. So the 5 went back to his little holler.

Again, 7.15 I am going for breakfast. Back 10:45.

Canada a few notes about the above incident:

Sometimes give HF from a neutral M position rather than the usual one.

I think one can deduce the social outline of a "normal" greeting ceremony at its most complete view might be: O-(L)-(U+HF)-M-+ side to side head turning - T-mg from M (thus the T-mg would even to appear at an unusually early stage in this species). In the 5 it might be: O-(L)-(HF)-(HF and H55). This must be studied if possible.

The 5's before attack I have never seen not my ritualized - but will do. It definitely, opened long before the delivery of the actual blow. Three 5's after look like silent 5's, often accompanied by pre-attack postures or angry LI.
The sound of the "hackle tone" LCN, without the "hackle tone" could be described as "hiss".

The apparently unusual "I noticed earlier this morning was back on his normal territory. Given LCN's territorial display level (checked out there. They do seem to be "hostile" patterns directed toward flying birds -- rather than expressions of frustrated sexuality). Our bird landed about 2 ft away. A (let us call him A) took off, then B, then attacked new comer who had just landed in.

Perhaps A already has an attachment of some sort. The returning broke up from a dog. From M, ran to a lead about 15 ft away, and U+HF, M, M+HF, M, M+HF, etc. The other bird just looked at him, blankly from V. Then A flew off on circular flight. This didn't look as if he were having too much success.

12:35 1 Volunteering escape Volunteering escape X before attack - After attack

My view common by one or both birds of prey during short periods of 
aukness which appear to be low-intensity or "muffled" forms of vocalized 
territoriality provoked by mutual passing behavior.

Briefly, apparently A attacks wells another some distance from his territory.

Does a couple of LCN's before landing, changes to M notes before he lands, then 
does M+HF immediately upon landing, then M+HF-M-M+HF-M-M+HF-M-M+HF-M. etc. Other bird just looks alert and runs away.

Even though A may be semi-territorial, i.e. defending a territory from 
true to true, he is also gone from his territory from time to time, and I imagine 
that he is usually displaying in some other part of the area during their away 
period. (I know by what he calls)

The early passing behavior I have seen so far, is remarkable for its 
variety. Conforms a certain suspension of "fluidity" in behavior already conveyed by 
variations in the LC performance. This species appears to have quite a remarkable 
range of innate patterns upon which, it can call in situations which are apparently 
stimulated. The species appears to be more "fluid" than either gulls I have studied.
Might this one pattern be included in an earlier count of a behavior of kind 0, parallel with partner, then pointed bill toward partner at end of 0 — just where I would expect M?

First about orientation of the 0 for performance toward partner. Two main types, face to face, vertical by side facing in the same direction, with all sorts of intermediates. Of course, only occurs when birds are more or less side by side.

But I think that T, often 1, and I can occur with any sort of orientation.

About the orientation of other horizontal sexual displays — I think that their orientation is perfectly "conventional," no like the corresponding patterns of most other quills unless noted otherwise above.

In spite of my earlier suspicion, at first glance, that the condition of the U in this species (i.e., "complete") might be "primary," no any little actualized. I now believe that it must be "the primary," highly actualized. Otherwise one would expect a great many more of the Agg series.


All C's might be expected, unusually quiet in the air, but occasionally on the ground. Can confirm what I said earlier about the actual syllables themselves sounding like large frogs — this uncertain the usual conclusion. Occasionally they sound a little more like Hydroptilus, but never so much as the Agg syllables of Hylidae.

They have been unusual major silent ones already this afternoon. One, a very long, repeated one, was apparently set off by a Whimbrel flying past my right.

Now... You... your attack — your attack — bird inattacked — you escape. L-N-L-N-O L-N...

This attack. Your attack — bird inattacked — you escape. L-N-L-N-O L-N...

You... your attack. Your attack — bird inattacked — you escape. L-N-L-N-O L-N...

L-N-L-N-L-N-O L-N-L-N-O...
Have seen one case of apparent attempted rape in which the attempt was definitely the female's mate.

The more aggressive M's, those connected with actual attack, particularly on females, are not as low as the more "neutral" M's. Horizontal rather than vertical to ground.

One can almost always tell when a copulation attempt is going to take place - long before the event. An attempt almost always takes place when one or both partners gives a really long burst of T before. This is almost the only occasion where single cycle long bursts occur.

A V-gest V. & Alv. U - V redirected or - redirected attack!!

Q displayed to one Q. He did O - M linen. Then V-H-E, circled around Q M, etc. I did little beyond O + E. Then envelope of none distance away did O linen. Anarch to Q. in M, mutual V-H-E, O immediately attempted to copulate, of attempted. Q off, bounds, stand together in U. This was apparently the case of an uncontrolled, soliciting a mutual or slightly initiated Q.

The U's generally Q. during pairing are rather short-rumped. Head appears large, because the back of the head is slightly "swollen" i.e., feathers must be raised.
When, after being attacked, the birds turn face to face, they often initiate a courtship display. The male may spread his wings wide and bow, while the female may flutter her wings and raise her tail. This display usually results in the male standing on one leg and the female perching nearby.

I have noticed several birdscopulation with M. somaliensis as well as several
with M. rubida, so I am certain that "coupling" is a characteristic
which may have been interchanged between real M. and M. somaliensis.

Incidentally, incomplete sexual plumage, displaying with incomplete
plumage (including the tail, wing, and body feathers), may be seen in birds.

I think that, although it may seem to appear comparatively early in the
mating process, it may act as a releasing mechanism to "select" or "mating" encounters between birds that have already formed pairs - bonds with others.
Buds on ground do LCW toward me, i.e., a potential predator.

Apparent exception to the preceding statement is an actual case of pair formation (see through color) in M, giving repeated LCW's. She does O-L-HF+T (these last two almost simultaneous?) hence two different buds. In addition, two additional exposed buds to linum—which may well have been nectar sources for all I know.

Now that a surprising little pruery, limited to displayingly birds on ground toward buds in air, I wouldn't be surprised if the overwhelming majority of these displays I have counted were "intrusions."

Major pair O-L-HF+T, not off by dogs. Looked as if doves were leaving for the night. Leaving myself.

Several long delivery "moooom" notes by birds flying over me.

During a period of relaxation in the panic, I think there must have been O-L-HF notes, but they were not accompanied by particular movements or postures—just flight with ordinary wing beats.

Time spent watching common arum field: 6:05 - 8:45; 10:45 - 12:40, 3:15 - 6:30

December 27, 1955
Antofagasta Bay
should return to the fact that any number of o,f, behavior include
relating few patterns shown during any early pairing stage 'greetings.' There
are exactly patterns greatly well-sorted levels.

They have become several number silent species. One can now that
they aren't even silent, i.e., looks gone less than ("rattle") as they went up
and continued it to flight. During one of these games, I heard many "Wa-
na-de-a-aan." No one, apparently, I couldn't see any signs of capturing
or signaling, so these notes sound have been given by a "normal" flying bird
(incidentally, I'm sure of the "LCN's"arrested rattles under tow") I have been
hearing from time to time. It might be intermediate between real LCN and for
the real LCN is "clearer" too. And I have never heard a "clear" LCN by a loud
unparalleled - except for these apparently traditional to it. The fact
that their RC notes occur during games, in conjunction with other evidence,
would suggest that there is a high intensity pattern relating aggressive - but
not necessarily nor. Just like the LCN of Franklin's Grill, in fact

I saw a great deal of reduced aggressiveness by various pairing
birds yesterday. Usually, but by no means always, by Fe. This obvious ag-
gressiveness makes it seem to believe that the M. LCN, etc., pattern, as common
among mutual displays between mates, contain a strong attack component.

I have always been aware that levels of many species of birds tend to
give LCN's before flying up. In some cases, these LCN's were obtained aggressively
enhanced in some sense, but in others, they appeared to be more problematical.
All or almost all LCN's before flying up in this species appear to be due to "frus-
tated sex."

Therewith, both V+T. V+H, V, both H+K = V

and the M. and then M. and then... too few to commit.

I q. raising 1 cap attempt after other mounts, gain upward annual.
But within our particular case, obvious then to call it all-in has. Is this
a persistence of Fe?
November 28, 1958

The female did a little running about in U, at least one T. It followed her, and, eventually in W, alighted at least once. Normal PAC's, apparently regurgitation intention movements. Bill shaken quite often. It was perpendicularly. Then both relax.

P.M.-HF-V 4-2 HF-U. Unsuccessful. 4-5, 9, 5, 4. Both 2-8 F-U.

Hence, a very soft, plaintive, moderately high-pitched sound, distinctly at least, could be transcribed as "How?"


Can confirm again, again. There is a definite tendency for A's to T from H minus 2 to H before copulation. In the way T move, and they are certainly in H for men. Does this mean that the incidence of A's is relatively stronger than that of H's at this stage? I think no.

Another complete T-C by blind gliding descent, (the true glide was apparently not connected with landing. Bird flew on, up, tucked, and then landed.) I think it is safe to say that there is a "tendency" for birds to glide during aerial attacks. In other words, the glide is less critical, and than that of Franklin's Gull.

C-J. H-T-H-U-2 455 - F-U. C-E. G-0. 0-0. C-0. &. Post-Post-Post.

Another glide with aerial T-C by blind flying won me. Definitely not connected with landing - head down wings open.

F from Mary's looks very much like F of B. A.

The last part of the complete T-C performance was a lot of comparative significance in connection with various "tibial plucking" "calls of atticus" tones.

The 0 often stands in U, deep SS movements during copulation.

Leaving E. 40. bird already asleep for the next part.

Back 8:100.
I still think that the "Kerou" vocal call (i.e., without rattle) may be transitional to Kerou, but a much shorter, sharper, and (?), louder, still seems to be given only (?), by birds flying away...

Before attack - Attack attack: 1, 2, 3, 4
After attack - Attack attack: 1, 2, 3, 4

V. G. attack: Unpredictable - VS/Final attack
V. G. attack: VS/Final attack
V. G. attack: VS/Final attack (as a hostile pattern)

I think that there is considerable evidence that the performance must be high-altitude, since the complex of M. Again, that the complex of M, M++, M+++ occurs frequently during all sorts of moderate - high-altitude, where less "friendly" encounters between the members of well-established pairs and 1s and 2s are relatively rare in the same circumstances, while there have been at least one or 2 times, performance in all the areas was "pan-formation". However, I have seen only a few cases of the "pan-formation" encountered with FB or COP, and never occurred with FB or COP.

The overwhelming prevalence of V. G. in this "common" area is one of the few definite features of which this species resembles the "longer form" gulls more than the "jessica" gulls. Another is the pairing behavior existing on foot...

Then seem to be fewer birds around this afternoon. Does this mean that the colony is becoming more territorially occupied?

I have mentioned about my notes of G. and G. behavior. They don't include the display associated with "normal" F5s or prescribe others. In one or two cases, I have included events of hostile displays associated with my F5 performance.

And gives frequentated aerial calls before landing. When they are frequentated they cannot be called "rattle"—they are really polyglotticals. Five syllables, and could be tuned endlessly like the ABC of "longer forms" "Kuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhakuhak uh
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Today's also dull for another reason. These are two selecting less hostilities between partners than on earlier trips. When there is almost always sexual contact is initiated by an approach to the other partner. This is a general rule of pair formation at any pairing.

Fourth of this pairing I have seen is certain "ritualistic" manner as its occurrence has been selected for in the course of evolution. It is far too common associated with pairing to be coincidence in such circumstances. Sometimes it occurs the display, but more often looks the temporal end of a heat. What does this suggest about its causation? The pairing I have been counting as "hostly and unusually numerous, accompanied with abnormally autotomous positioning, but it is seldom, or even as "nervous" as the most autonomous "nervous positioning" I have seen in some other species. Has it at all "ceremonial".

Count to the conspicuousness of the "running together in M and V" shown by many times out of 10 when they become widely separated. Sometimes preceded by a "luring" ends where the birds are made to slide in M+H+V+H, and then alternative display sequence. This "running together in M+H+V+H" following M+H+V+H is occurring constantly throughout the colony at all times of the day.

Included in the above count is an incident, purely early pairing in which both M and V did two complete circuits for the heat. During the usual short space of time, both birds have seen about almost like braided gulls. This happening, in the case of the M, was associated with M complex appearance gestures in general. The M bird, of course, "spotted" during "satellite" eventually, and the V initiated, I followed her in M, but each time he got to her she retired from view. Eventually gave up and went back to the place they started from. When wound up at spot she had retired to - at least 30 ft away. Both records below and began to pair.
In today's practice, drones entered the airspace and caused concern. They tend to come in clusters, often behaving unpredictably, even when using VFR techniques. Consider the following sequence:

- **VFR Entry**: Drones entered the controlled airspace at high speed, creating a disturbance.
- **VFR Escape**: The drones appeared to escape from the area, maintaining a high altitude.
- **VFR Entry**: Upon re-entry, drones were observed to be cautiously approaching, showing signs of caution.
- **VFR Escape**: The drones continued to maintain a safe distance, indicating a possible change in strategy.

This behavior suggests a preplanned escape route, possibly to avoid detection. Further investigation is needed to determine the exact nature of their operation.

In the context of our current operations, the drones' behavior indicates a potential threat. It is crucial to monitor their movements and implement appropriate countermeasures to ensure safety.

I must reiterate the importance of maintaining clear channels of communication and ensuring that all personnel are aware of the drone threat. Immediate action is required to mitigate any potential risks.
Annefield 9:30 a.m.

A few comments upon sound of some calls. The second part of

the ground L.C. is relatively muffled in plant line. Really quite reminiscent

of the Ac. monetae at night sound. It is certainly less "clear" than the "hissing

note. Ac. monetae's note sometimes given by flying birds. Another way phon-

etics. Don't quite know how the second part of the ground L.C. differs from

the "hissing" note. Ac. monetae's note given by a flying bird during a

naso. B.C. second part of the ground L.C. "hissed" and, perhaps, often

more "gurgling"?

V. Before attack - v.v. after attack V. Before attack - V. After attack

V. Before attack - v.v. after attack V. Before attack - V. After attack

V. Before attack - v.v. after attack V. After attack - V. Before attack - V. After attack

V. Before attack - v.v. after attack V. Before attack - V. After attack

One extreme case of B. doing extreme T. from V, placing material. Quite

unusual to see this extreme t. movement as anything I have ever seen in the

Laughing Gull or Franklin's Gull.

Still must be relaying prose

...
There are quite a number of attacks delivered without any preliminary display; but relating much fewer than in the Great Grey. The Fea means we are having considerable trouble reagulating food for their families. This is a true Kelp Gull, who keeps trying to bomb in when the food starts to appear, long before it can really ground!)

Most of these birds are semi-territorial, in the sense that they tend to stay and return to the same area (even a period of hours at least). But most of them have very little territorial defence, hence to be content if an approachingbird maintains its individual distance. It is entirely my impression that this species is much less aggressive than some others I have worked with. This may be due to the circumstances, i.e. the fact that this is a semi-occupied area, but I should be at all surprised if it were due to some relative weakness of the attack drive, perhaps even a weakness of the normal factors of the drive. The escape drive seems to be correspondingly weak. (But I should add that this species does not convey the above, indifferent, phlegmatic impression that the Kelp gull of the Kelp gull colony. It is quick and active).

The only really aggressive drive I have seen was A. He was defending a real territory and be received quite as inevitably, and do prove to redress incongruency against Franklin's Gulls and Black-Headed Gulls.

The above is a picture quite the "normal" Fomme type. Body quite tittle legs, only slightly bent, neck somewhat extended, up & down head movements.
There is thus both a "normal" Ch pattern, and a Ch & H pattern.

One rather unexpected aspect of the neural behavior of these species is the way in which the Ch seem to be much better than the H in this average. Thus in various observations I have seen Ch's swiveling & the H's swiveling almost constant. Thus the Ch is usually in V's with occasional H's, even H's and SS's and little reticents. Such Ch usually start to run away when of tries to mount. There is a tendency to almost confirm the 2 logical theories that the Ch & H are dominant. It is held the Ch is higher than the H before copulation can take place. But I have also seen many apparently successful copulations in which the H definitely had the head higher than the H, breaking before mounting.!! Repeat, --away-- it is so common as to be perhaps usual. But many females are allowed to occur in absence, & with many H's and SS's.

Many are seen in pairs, from time to time, during which the H tries to mount, the H being off immediately, and leaves a cross with irregular diagonal and M postures, giving repeated M notes.

Many successful copulations are preceded by intense mutual swimming, but the only times one sees that F & T obviously much more than the H is during the F's. Then one sees the F's being much T's, often from H or semi-H, also during peak at F's full extent, swimming rapidly back & forth in front of F's, or even around them, while the H extends in V, with occasional H's, giving low-intensity, indications of escape and/or reduction aggressiveness; close occasional E's, M's, and M M notes, and finally does M & M notes & reticents.
There may well be the cases in which the female, in a relatively strong
environment, and her opposite desire (most significantly, the immune
drive) are relatively weaker.

Correction to something I noted earlier today which may have
given a false impression: I have seen a number of great tits, besides A,
which were noticeably aggressive. But A was the most extreme case.

Calling reduction, attacks are found, common during early pairing.

Well! Well! Well! When first alighting, grooms, walking
around one another, with feet away T to C (covered in each case). Then one
turns to mount other. Walked around with bill in air, with belly feathers
shuffled!

Occasionally up into H, making low-intensi-
ity mounting movements, keeping neck
even position, uttering M. Then stands
in V, raises a wave wing, shuffles out all feathers as during copulation,
with a few notes of copulation. Makes more open attempts to mount.

This was definitely the Q!! The Q sat in tracts with T, whenever &
tried to mount, then continued T from H & finally copulated twice on
the ground!! The Q tried several looked!! Then the Q mounted the Q
very rapidly, without any preliminaries, & ran away in V before
he could begin copulation & then both birds walk around in V & H &
both several feet. Then flies a few feet.

Then flies in front of Q & utterer definite M note. James
Then pair lands. Q goes into M immediately & mutual display occurs,

Then quiet head, several other M notes by flying levels. Walk on
from bird flying 15 to 20 ft apart. Then birds didn’t land.

Nutra attack. Qut between attacks. V & H attack Q. V & H attack Q.
modestus, Dec. 1, 1955, II.

There are certain as many lands line this morning as there was were.

The actual calms can't be any more occupied than the day around.

1 P.M. — levels generally low. Back 4149.

Another round of land level flying near me. With glide again.

Then notice a cloud. Flying around with suit and deep wings.


long clear. But not particularly pleasant. Less pleasant than the second part of the ground. I. High level lands, and it is sunny that he is giving. One's spread in M. Goes near. "Oscar-suo" O — right 10 then V. Each time he gives 10.

A sign toward him (name female each time). He rises in M. Grows 117 from M when he goes to near him. All turns in to the farthest being. Then another off in M again, goes another. L.C. again, when close to 15 ft. or so from the L. He approaches in M again, etc. Repeated at least 3 times. Then a focus of again, swift flight with deep wings simulating a good deal of twirling a turning or cycling but not rapidly enough to make it really "Epona." Calling is quiet about as extreme as the "Oscar-suo." "Keeceo-suo" I know something noticed in the silent (Bruts of the period). Goes repeated P.C. notes, clear "Oscar-suo" L.C., and all rest of intermediates, all very rapid and all rest of intermediates (Above evidence, I think that "Oscar" L.C. is largely related to the P.C.). He's far away, still circling, twirling a turning. Turns does shallow gliding sweeps & sees.

Probably gave P.C. — not during these sweeps. But he was too far away for me to be sure. So finally for the P.C., the distance must be done to seem to return for several minutes.

Another round L.C. with glide. And far from me.
There is little doubt now in my mind that "Gnome" aerial LCN's begin in step with the "rattle" aerial LCN's, and that the BCC's in higher intensity are the winner. Both probably contain both strong attack & escape (i.e., caution & alert). Silent, almost silent, quiet, almost invisible, no unusual posture or movements. The LCN's in the BCC notes are all mixed with "rattle" LCN's. Have seen more and more quizzing with aerial L.C. of them given by birds near me. Does this suggest that the aerial L.C. is more or less aggressive than the usual BCC and related patterns? ??

Three miscellaneous patterns: First of all, an apparently single LCN, with small or no "rattle" going from place to place in the colony. Second, three or four LCN's, two or three together, with "rattle" going from place to place, looking for the LCN's to go into a semi-crouching position. Third, three or four LCN's, two or three together, looking for the LCN's to go into a semi-crouching position for each LCN. Noticed that the feathers of the nappe and upper neck were slightly ruffled, giving slightly vertical or egg-shaped effect. 

There are not sufficient data to show whether this is a typical aerial LCN's. Have seen O between LCN's.

I think the feathers near the head are also ruffled during this O. and all around after O of this LCN that is ruffled. This seems to contribute to the peculiar quality of the O of this species. Looks long-winded for several reasons. Neck is thickened and nappe feathers raised, so that head looks small because not separated by symbol.
invasion from the nasa. Same thing true of the M. Thus the “egg set” is present at least in the reverse form of the M, as all populations considered. To be possible that it is not as conspicuous during the formation of the nasa, particularly the formation of the M, as seen during purely host-to-host encounters between “hunting sources” and neighbors of introducers. I sent to places where there were other levels, one of which was definitively the O of another pair. Did M-NF to 250, V-MFE to the other level. The O of the pair quite satisfied the “visiting” level. The other level past looked coldly at the “visiting” level. The visiting and finally went to an other place, where there was still another level, possibly O of the V-T-MFE couple level.

They appeared to be a case of a semi-mated level playing the field while quiescing its mate for awhile.

Then pairing. O spawned, O landed beside him almost immediately.

Both levels V-T = V-MFE. V-EM = V-MFE etc. A flew off, landed, gave LC.

Then A flew to join him, landed some distance away, walked to him on foot.

The greeting was O-MFE-IV coupling. A joined the coupling. A flew off, followed

I tried to organize my thoughts about the pairing display, even though it will be repetition of a lot of stuff I have written before. There are obviously 3 main elements: O-IV complex, O-M complex, and O-L-IV complex.

Now to take them in reverse order: 1. LC is always, or almost always, confined to situations in which the mate are separated in an apparently unmated pair displaying by herself. This solitary level gives repeated LC’s (more frequently and appearing earlier by the I even in the case of mated pairs) calling “a potential mate or the actual mate to its side. O’s and O-IV’s

are occasionally active period in this LC’s appear to be a highly intense form of the LC. O’s LC’s occur (I think) occur after the mate have reproducible one another or a LC has come to visit an unmated B O’s and O-IV’s do.

However, they are then within the initial “greeting ceremony” or follow-quickly after a brief V-coupler or M-coupler. Very seldom occur during the later stages of elaborate series of greeting displays. The O’s and L’s that occur.
arguing an almost-always-communal with HF movement, sometimes combined with T, B, and S. Mcomplex and Vcomplex are much more closely connected. Sometimes appear to be almost interchangeable. Both M and V can be used by a bird moving through the colony or "invasion" walk or run, but the M is much more common than the V. Both M and V are used as "greeting" when D and F come together. The M usually appears first, or at least, is concentrated toward the front part of a series of greeting displays. It is often peculiarly conspicuous, for instance, when D and F turn toward each other, a bit before or at the very beginning of "greeting".

The egg times M's are usually conspicuous toward the end of a series of greeting displays, that is, they are followed immediately by pre-coop behavior. Greeting M's are usually silent. The usual order of succession of M's and V's, in conjunction with other evidence, would suggest that M's are higher in intensity than V's. Both M and V are usually accompanied by HF and SS movements. Such movements are probably, however, common with the V. Both M and V are frequently accompanied by T's (much more frequently than D or D-2). But again I think that such movements are common with the V (at least in the case of G's). The V's are very frequently accompanied by rapid and vigorous preening movements, movements which are certain "significant" at "displacement." The only other movement occurring with M or V that appear to be significant are "pointing" and "gritting" and I really don't know what can be said about these.

The whole of the non-social and grooming behavior of this species is reminiscent of the Laughing Gull as described by H. W. Much of the Vcomplex appears in similar form, at similar times, in the two species. Some of the Vcomplex of the Grey Gull is comparable to the "greeting charge" of the Laughing Gull. Most important, however, much of Mcomplex is strictly comparable to both the "greeting charge" and the "feeding charge." And in addition, of course, the M + M mate is strictly comparable to "feeding".
I have been watching a number of Herring Gulls casually in the
intervals of watching Gyg gulls.

There are often quite a number of these birds around (up to 15
or 20) more than a hundred are pairs. A few are quite adult. The rest are
adult in apparently full nuptial plumage.

This species looks like large, heavy-coated Herring Gull. Small
head, heavy bill, large and long body, but not very long primaries. Bill
is usually bright, clean orange yellow; under wing yellowish. Legs
vary from greenish yellow to rather bright orange yellow (with slight
gray wash as in Ring-bill). Underside of wing quite distinct:

Strongly black and white.

Most of the adults are obviously partly mated already, but
I have caught a few obscure glimpses of early priming aerial "meeting"
like that of Herring Gulls in Virginia. One mate joining the other on
ground, and then M.C. Pied on ground does L.C. before mate lands, then
mutual U+H F.

Now for the various patterns (all adult unless otherwise noted).

Voice of this species is noticeably deeper than that of Herring Gull
and, surprisingly enough, "baser". This is particularly true of the L.C. and
L.C N. The Maud T calls sound much more like those of Herring Gull. In
any case, I think that all the sounds I have heard so far can be trans-
cribed in the same way as the corresponding notes of the Herring Gull.
Aerial LCW's are quite common, although perhaps less frequent than those of Black-capped Gull. Deep, short "Klee-oo" or "Klee-oo" sounds, given from the usual undetermined posture.

Ground LCW rounds the same. Sometimes given from semi-0, or semi-0, but more often accompanied by brief HD movement or intention movement (quit like Ring-bell).

Complete LC call heard on ground. Given from semi-0, HD-0, or more frequently, from HD-0. Many notes, each one chirping only a slight modification of LCW. One or two introductory notes with semi-0. I don't know how many notes with HD. 6-7-8 notes, getting weaker toward end, and slight shortening of pitch, with HD note much like that of Herring or Ring-bell. On call like that of Herring.

Quite low. LC's open toward flying mate. Also toward strangers or intruders who come too near (particularly on some of the smaller shores - the only places where there is sometimes a brief indication of "real" territorial defense).

Juvenile LCW's, which are occasionally given by flying birds, sound just like those of related species, but again are deeper and longer.

M notes are quite frequent, level. Apparently intermediate in frequency between those of the Herring Gull and the Ring-bell. Apparently always directed toward the mate (always by the F7 ?), or, at least, given when the mate is present. Given from M or regurg (i.e., lead to ground) posture.

M notes given by both birds in air or on ground. (I haven't caught the aerial posture accompanying M - perhaps it is only given by birds about to land). M note itself is a plaintive, long drawn "Klee-oo" or "Klee-aaah."

T and E-B patterns like Herring Gull. Have seen only one regurg in F7, and this was silent.

The U patterns also seem to be just like Herring. Was none.
sort of "aggressive head-set," until all pointed almost vertically downwards, pressed to get against wall.

I haven't seen any trace of ritualized sexual postures or movements, or anything like a "nurse flight."

December 2, 1955,

Antofagasta, Chile.
An apparently aggressive form of U

and definite visual appearance.

This calling of U's by G's separated from their own appears to be quite effective. The goslings respond immediately.

Noted that a bird rushing to attack in U-G had swollen egg-shaped head and neck.

Rushing forward to attack with unopened bill.

Escaping by turning.

Have again seen "crushed head" not aggressive head after attack. Thus, it may be most uncommon, except during the initial instants that it could be called "causal" by M-G. GNE-MNF, G + HF.

LCN before attack - Goat attack - HF before attack - Goat attack - HF after attack.


The G's before attack often look like silent LCN.'s.

The "hush" accompanying many or all extreme M's, often looks like the lump occurring during regurgitation. But of course it has nothing to do with regurgitation; now at least, in the hostile M's, and apparently not in the "greeting" M's, seems to be a case of "mincing."

Another case of pairing as before. G walks through group in M Dess.
extreme U to HF to one level, under quickly moves away (we'll return U to) U. Then U stands a minute, giving UW's from semi-1U. Then moves on again to another level, probably another & of does U+HF again. The animal responds by giving U+HF back. Quickly does T=C+L+HF-U+T etc. The Q goes on

the U takes & gives various U complex displays. This was obviously a case of a T indicating one & getting the wrong response, and then going on to select another & and getting the right response. What exactly is the

right sequence? ?? Certainly part of it is the HF. Do Q's tend to give T as part of right response? ?? Perhaps, but I don't think always or even often (must check on this). An H.E. often part of the right response,

but it isn't the very first part. I am becoming convinced, in fact, that the

H.E. almost never the initial reaction of either kind during any early pairing

quaking —provided that the real operating element to start until the Q-levels have

come close together.

Some negotiations by Q's, although done from M pairing, are not acco-

panied by M overtly. Just now one are particularly clear, the animal's

motions of reduced attitude or escape behavior. Began this immediately after

finding the Q. The Q then became unusual and vitally precipitated several
times. All this suggests that the Q doesn't give M motive unless he has strong

motivational, i.e. M to reproduce by attack and escape

drives (relatively stronger than those responsible for producing single M

without call).

Friday, 10:20 A.M. Back 3:23 P.M.

A continued U 55, when 5 5 HALS from him. I worry are almost shut,

presumably shutting out the hormonal right. But then I open them wide when I leave

to female and go into M.

A thing beside Q. In the 5 U. Notice that each time the 5 comes out

of the T, with the semi-U, then the Q. Do nothing but stand in rather any 5.

At their attacks neighbor, stands in utmost U, quite ag for this species. Well
When winging L.C. in flight, the lower bill appears to be quite concave, and the upper bill appears to be slightly arched. This is presumably part of an optical illusion, but it must reflect something real.

An adult L.C. also will bill wave, open, lower mandible prominently concave, and neck in vertical fur-position, still straight forward. Still appears to be little ritualistic.

Ota before attack - Ota after attack - Ota before attack - Ota after attack - Ota before attack - Ota after attack

A little after attack, M's attack - A little after attack, S's attack

10 1/2, 10 1/4, 10 1/2, 10 1/4, 10 1/2, 10 1/4, 10 1/2

Greeting unusual, then both birds began flying quite vigorously. Expected a cop. attempt at any moment. Each bird made 3 avoidance attacks, with successful modulation. No attempt to mount, but made repeated regurgitation and funnel attacks. All this conveyed the impression that the C and also probably the S (and also probably the S) had a strong minding, but the remaining heediting was so strong that the C simply couldn't bring himself to recede, and thus regurgitated instead. Regurgitation appears to be a literal "substitute activity."

Amplification of something I noted this morning, since it should prove to be misleading. O-L performance after the initial stage of greeting after birds have run together in M, but I don't if this is usual (i.e., if it occurs during an actual majority of such greetings).
There is a characteristic shape to the head, a neck, shining in color, to some extent. Feet are thin & long (much is also of the long, very nearly stick from sole, near the end) and the greatest thickness, which looks to be a slight swelling, is just below the neck. Previously, correlated with "egg" shape.

Confirm. Lots of it is much longer, much larger than the cow city of clump particles I drew at the Penitent.

This sort of thing is quite common.

Pattie tells some of the "ann" pictures of Ruby Balls.

Armed and quite glade, followed by swift flight; rapidly beating wings, with some twisting and circling, rather like some of the swift flights I have seen with P.C.'s or less antelope (not so far away), Pectoral Pennant. The whole performance looked at least as high as the weasel and P.C.'s with out-lever at 204.

I should say that a good 25% of the actual attracting that takes place in the group (and attracting is actually quite common) is expression of the man according to the books of many, preserved (more or less completely) by the presence of the partner. All other forms of attracting, the actual expression of an intent, or real intent-attract in the presence, seem to be minor. This is reminiscent of aggressive, even unaggressive species, except during pairing. Probably I have had difficulty getting my decent sorts of un-aggressive to pair. And I have probably never told unaggressive to pair. I think that the display associated with attracting are much the same when the attack is reduced as when it is "quiet." The only difference I have noted with M.'s before attacks are relatively common, when the attack is a reduced one. And even this difference, if it does exist, is probably slight.

I have seen absolutely nothing, with the possible exception of a few
UHF's and Mz UF's, which looked like hostility provoked by a migration or intrusion and restricted upon a mate.

When a reduced attack on a gull, takes place, there is definite tendency, for the part of the UF by the attacker, to be directed away from its mate, irrespective of whether the attacked bird may be or may have gone too. I have tried to induce such "reduced" UF's in my counts.

The frequency with which UF's are superimposed on Uo or Mz, incidentally, is another resemblance between the species Franklin's Gull. Such UF's are much more frequent in this species, however. I think that this species scores more UF's than any other species I have ever watched.

A UF of something 67, 70, 70. 57, 57, 57, 57, 57.

There seems to be absolutely no ritualistic hostility toward Help Gulls, no "potential mated" reaction, in spite of the fact that the young Help Gulls frequently try to steal the food of the young for the young.

I have often seen to water to bathe after copulations.

When an attack - a flaw attack - Mz UF - UF - Mz UF - Mz UF - Mz UF - Mz UF - Mz UF - Mz UF - Mz UF - Mz UF - Mz UF - Mz UF - Mz UF - Mz UF.

Have watched a number of duets, giving "clean" UN's, on ground.

In particular, apparently "wanting"; mixture ofUF's, with a lot of attacks on ungulates. The tendancy for these UN's to be given from more upright postures (although not always) than those usually associated with "rattle metal tree" UN's. Isn't this good evidence for the theory that these "clean" UN's are higher, quicker than the "rattle" UN's? These clean UN's could be termed as "Clean" for this.
One thing in particular about the aerial Lo. I have only heard it give
only brief flying low, either near me or near other birds on the ground. I have
never observed it in a form of hostility between flying birds. Of course, I haven’t
observed them from flying or fractions the way I did Franklin’s Gulls, but I
think that the aerial Lo. cannot still be reacting now as an “inter-
action” pattern. Rather it enhances the impression conveyed by the abrupt
absence of permit flights. Other birds must be at least reacting now as the
species. I have seen far too many cases of vigorous redirected hostility during
flying — when B. C. J.’s and Franklin’s Gulls would pursue like mad — for
them to be anything else.

A bunch of reported Bobcat Owls are now land perfectly getting
ready to leave. Notice that in the fleshing up, during the first few seconds of
the flight, that many birds uttered “Whoop” or “Whoop Whoop” or “Whoop Whoop
Whoop” calls. Much slower than usual B. C. J.’s. They were probably, however
use modification of the B. C. J., all is slowed down by intense strain of get-
ting up and interrupted flight? Displacements by intense exasperation?

But come back 7:00 p.m., but please

This was cutting an extremely droll day!!

December 3, 1955

Autosaga Bay

A new field on S. end — speed most of morning drawing.

Heard a great bird flying, quite complete L. C. Essentially just like
their soliloquy. Notated “gier” quality of voice. Perhaps a little weaker, less carrying
power than the barks of adults. Decided almost Chelsea, a lower, thinner than that of
adults.

Bob at 8:50, after watching them earlier in the afternoon.
Have been paying some attention to M notes given by flying birds. Have heard them several times by birds flying over colony, alone and moderately high. There may have been directed toward a nest or ground below, but the sound must have been some distance away at least. However, these birds were leaving, not approaching the group area. I have heard another solitary flying bird also flying quite high and away from the colony give complete M notes. All in all, these M notes seemed to be quite as much an actual pattern as the usual L of this species. But perhaps still more vertical but that they are much rarer.

It is my impression that these birds, in their circumstances at least, do not seem more sharply during their flights than do Franklin's Gulls. There is always a definite flying up after the end of the glide — a flying up which I do not remember seeing before in Franklin's Gull.

I have seen little or nothing like "circling" one such a potential predator. The birds might escape by flying away from human beings. This is an indication of the relative weakness of the attack drive in this species. Ring-billed gulls would certainly circle even strongly they were away from the colony in the vicinity.
First watching some interesting pairing behavior. Essentially the same
as the stuff seen before, but more stereotyped. Almost classical example
of the sequence, also M + HF (A-D-T) then both in U-HF. Q runs away about
15 yrs, stops in U, Q turns to become M, H + HF when leaves. Again, then U + HF. Q
just does V plus HF. Then Q runs away again, stops. Q runs after him in M,
HF when leaves then, then U + HF. Q just V + HF. Q runs away again and
the whole procedure is running away followed by U's + HF's by Q and
running of Q in M, followed by HF's, U's + HF's by the S, is repeated.
Again & again (14 times in all) then Q runs away.

This is a few features points to be noticed about this sequence. M
some did C-T after Q left them, Q came and B U's after leaving the S, when he
was slow to follow him! Q is running away was definitely escape-ment of
the time (probably all of the time, but I couldn't always be sure), preceded by
a slight turning away, and the new bird was entering the new nest and not directed
very much by any other bird. The posture in which the new bird was entering
probably common enough, but I (and my head) paid enough attention to it.
V's long neck, thin neck, slightly inclined at top of neck, perhaps slight trace of
"egg" but very slight, full point of strong downward
neck inclined quite strongly forward. (The whole thing was
perhaps slightly reminiscent of the Ostrich of the Selan Gulf). I am afraid it
that I may just possibly have called some postures
as some of my hostile counts. In any case it is not significant
morphologically that it is obvious that one should make any distinction
between U and V's "Agg U" or anything for that matter as these counts. (The
actual posture itself much like the posture through which a bird pants when
giving an HF with a strong downward component). This is certainly
one of the few relatively non-aggressive postures I have known, it which the
bird was pointed strongly downward. Practically the whole aggressive component
of the pattern was "expressed" in the bill angle, the rest being "pure escape".
On examination, they are running away from something, to be followed by a night away or after a few-weeks delay, the whole procedure being repeated, so not uncommon in the group as a whole. I have seen it in a lot of places. It is characteristic of early spring.

One bird, during particularly vigorous aerial, cleared very fast, gliding (but not rapidly), head under head pointed slightly forward at the end of the L.C. & Glide. This was certainly the most extreme aerial. So far I have seen no far.

Very long 'leech effect.'

The aerial M notes are given from the same posture most usually and many aerial L.C.N's are, a neck stretched forward, but bill, head, neck essentially horizontal.

Have just heard an aerial L.C. followed immediately by one 'clear' L.C.N. This was very reminiscent of Franklin's Gull. There was certainly no trace of it with this L.C.N.

Note about orientation of neutral thing before copulation. It faces head off into distance, and tries to get behind it. Finally mounted from behind thing, facing forward, but by now means always faces or keeps turning to face him when he tries to get behind him, until she is ready to let him mount, when she stops turning. As I mentioned before, the mutual face-to-face thing is sometimes accompanied by a little, very brief, "billing." This usually takes the initiative on the thing, and I think it is probably connected with FB. But I have just seen a 6:1 ratio the initiative in billing.

Have just seen pair in which g appeared to be slightly larger than a. (An ambiguity of my identification. The small one felt the g's, then mounted her, and an apparently normal copulation took place.) This is a surprise!

I wonder why I see so little aerial "pair formation" behavior these days. Do that phase about over?

Leaving 7:17.
December 4, 1955
Autosagunto Bay

Anne field 6:10 a.m.

Notice as I walk by that there is a nesting on top of a q, presumably a
pair of copulation, and both kinds are coming a series of "clay" "LNN", "Now Now Now Now..." Both kinds in V or semi-V Then Antart's cap
movement, -> notes and stops calling.

Before attack - After attack / After escape. V - Before attack - After attack
V - V - V - After attack / After escape. (count this about 13 min.)

I think these kinds are "emotional?" in one sense at least. They seem to be
paws, in the same stage of pairing, in the same places day after day.

Note on sexual behavior. It is very common to see a q Things from H, quite
rarely, coming "informed" or "un-informed" while T, in V, obviously
"nervous", occasionally making reduction attacks, making occasional A and
progressing into the movement, finally regurgitating, with or without M notes. Then,
as soon as the q has eaten, the roles of the sexes are pretty reversed. It is the q
who begins T ing vigorously from H, obviously more "relaxed", and the q
who goes up into V becomes really "nervous" (if the males reduction attack,
the usually makes them now). This sequence suggests several things. In the
first place, the appearance of "nervousness" is probably produced by an apperception
strong attack drive as well as a strong chase drive. In the second place, the act of
reproduction rests upon expression of a new drive too weak (relatively or actual-
ly) to produce copulation, it appears to release some sort of "emotional block," i.e.
then permits copulation or pre-copulation behavior by the q. How exactly does this
work? Specifically, it looks almost any reproduction, even "self-stimulation,
but I think that it probably produces its effect by reducing the hostile drive or
something like that.

It is quite remarkable how often mated kinds, usually (or perhaps almost
always) the, when separated from their mates, will do a brief "civulation" display
and then move toward some other nearby kind(s). Usually M or F not infrequently.
times even an O-L. This may not take as further evidence of the primarily hostile nature of their particular patterns.

Sudden burst of Talent Bense 7:45 - 7:55. Can't see what starts them off. In general, it can be said that their bleats are as strange to our ears as any other species I have studied in a colony at a comparable stage of the breeding cycle. (Note: NCN as they all feign toward her. Then HF quiet before the bleats. (This is exactly the same sort of thing commonly used as greeting by other quills, but I have seen very little of it in this species because the approach is so often on foot.)

\[
\text{Counts these about } 14 \text{ which (count them about } 14 \text{ hr,})
\]

Apparently still some unmated birds around. One of birds some distance from another bird, approaches, M + HF - HF + HF. Often bird just retreats or they retreat on M, giving repeated battle CNC. Then release.

The "bumps" on the side of the nest require O-L or during early pairing can be considered an adaptation making the platform a "deceptive" display, in fact at least.

For my counts of pre-cop behavior I am only using these cases in which

the 0 let the 0 stay mounted for a few seconds at least.

The record of mounting seems to continue some appreciable sexual motivation. I have watched sexual O-L mounting repeatedly, stepping off immediately each time (once case in which the 0 walked away repeatedly, another case in which the 0 just seemed to be played) every time the 0 stepped off, there was a pause of sexual seconds to a minute before he began flag again. This even though there was no sign (no display) of an increase in his hostile motivation. Presumably, that this sexual drive had been temporarily terminated.

It is remarkable how often, in a situation where both birds playing are delivered from a very ordinary-looking, intermediate, superficially low or moderate activity.

V: The V's of this species would acting appear to be less actualized than those of any other species I have worked on.
A case of triple copulation: A horse & e. on a go!!

Apparent case of e. mating occurred. I didn't call it the usual approach. When I first looked, the e. was in & e. The e. approached her violently before the fumbled e. Then I ran away a foot or so, but both she had walked away from one another, I then saw either of the two had walked away. Both moved back to meet me. I tried to make a few approaches toward e. on my own, but ultimately I was able to join another e., who was running in & meet her.

I read that both 3 & 4 were before cop. attempt, were "excited." Also in the news, V's being sometimes heard during intervals of 3-5 mg.

During this excited business, can be "neutral" $P_{AB}=A_{BC}$

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<td>$V_{2}$</td>
<td>$V_{3}$</td>
<td>$V_{4}$</td>
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Have just heard a flying bird utter most peculiar LCN's: "Somewhat... what..." With rattles audible, and obtaining a modification of the "rattle" as well. LCN loud, definitely pitchlike. Rattle without, voice "hissing" standing or in air.

5:00 & & attack - V after attack - V before attack - V after attack - V before attack - V after being attacked - V before attack - V after attack - V after being attacked - V after being attacked.

Must stress the fact the V's with healthy singing, at least the extreme forms of them, are relatively rare. The extreme "neutral" or "egg" forms are no more than 1-10% of total V's, at best, and the low-intensity indications of "neutral" and "egg" somewhat commoner (especially the low-intensity forms of "egg" are difficult to separate from ordinary V's).

I think "egg" V's are commoner with the V's + HF during mutual greetings between mates.
There may be some tendency for birds near me to trill in low and after
"Chow" LCN notes. Could this be the equivalent of the "ground DC" of Franklin's
Gull. Must check! (For reference on earlier day, in which I thought there
"Chow" might be something else.)

Yes! I think so! Just tried experiment of walking up to the group
my slowly. Birds went into V or Alarm Posture, started to retreat slowly. Also
gave a definite burst of "rattle" LCN's. "Chow" note, all sorts of intermediates be-
tween "rattle" notes & "Chow", plus a whole bunch of ABC's.

This "Chow", of course, is quite a type of "clear" LCN. My experiment sug-
gests that it may be a relatively high intensity LCN, and relatively non-aggressive
at times at least. It is also not dimmable in quality to a brief aural Pea note.

All this makes it almost certain that the "Chow" is the homologue of the "Ground DC"

\[ \text{V before attack} - \text{V attack} \quad \text{V after attack} - \text{V during retreat} \quad \text{V before attack} - \text{V during retreat} \quad \text{V after attack} - \text{V during retreat} \]

[Diagram of bird in flight]

Angle of wings during glide
(25° seems to be almost invariable)

Can confirm the bit about the "Chow" note having occurred again &
again when I approach the birds

Leaving at 13.40
December 4, 1955
Autogenous Bird

Dominicanus

Have continued candleing their birds, from time to time, but under
most unfavorable conditions.

It's as FB. This looks much like some of W. T.'s photographs
of the Koina Gull. Body is somewhat diagonal, breast up and tail
down. Have only heard sound at great distance, but it seems to be the us-
tual "Khoo" thing.

Mutual Tinig before copulation attempts.

Copulation like that of Koina Gull. Bill is open slightly, but
I haven't heard the sound.

The V posture seems to occur in the usual circumstances, i.e., before
and after attack and escape, after copulation, as MC. I am not sure
that the bird has a real "aggressive head-set" with bill pointed strongly
downward. Most of the attacks I have seen have been delivered from
a posture much like W. T.'s photographs, i.e. bill horizontal or inclined
slightly downward, for head-neck shut — so that the head looks very
reversed in front; when viewed from the side, the feathers of the back of
the crest appear to be relatively long, and are not flattened, so that the
bird sometimes (i.e. when aggressive) appears to be almost erect,
(although much less so than Franklin's Gull or even the Grey Gull).

Noticed one interesting thing about the attacks delivered from V.
They were similar in physical form to the attacks delivered by leucistic or
Grey Gulls — except for the fact that there was no "bill-opening", no G
even at the very moment of delivering an actual blow. Does this mean
that even these G's of other gulls that I haven't been counting as dis-
play, under the impression that they were "pure attack", are really some-
what ritualized.

This is no doubt that this is another species in which V's
are relatively very common.
There has been a large flock of these birds, in wintering-a-way, in the bay here every day since I arrived. Usually rest on the sherries, leave at moonrise. The birds are not very active, and are rather shy (they groove to silent Barnes), but I have watched them a little.

They show quite a bit of rather low-intensity eventualized hostility from time to time, usually when the sherries are crowded and more birds are trying to wedge themselves in. The usual gobbling-pocking, etc., well orientated, delivered toward opponent.

I have seen one possible case of a low-intensity war with not raised.

The call display that is at all common is what appears to be Glik, the call itself is a "Kaaau-kaaaau-kaaaaau...", It has a definite "rattle" undertone, a sort of rolling of "R"s undertone. The individual syllables are perhaps slightly longer than the individual Glik notes of Franklin's Gull. I haven't heard any very long bursts of notes, but it is my impression that succeeding notes tend to remain repeated on the same pitch. This is accompanied by up-and-down movements of the head and neck. The neck is usually stretched forward during these movements, but sometimes this stretching is not slight. Sometimes the up and down receive equal emphasis, but sometimes the down-bent is emphasized (i.e., more rapid). I think that the up movement usually comes first. The passages at the peaks of the up movement and the nadir of the down movement are shown by sketches in the sketch book (these passages are rather extreme, long-reach, versions). I think that the bill remains open throughout a burst of "Kaaau" notes. The neck is always raised during this Glik. I have seen some Glik with body R5, but their cases have been rare and may have been accidental. This Glik appears to be contagious.
I noticed some slight, short-quick, upward-down movements, with bill closed or crest not raised, apparently silent in brolite situations. These were probably ut. moos of Glick.

Sometimes a bird on the ground, when a flying bird was about to land in rear, would lift its head up, sometimes twisting it around to face the flying bird, open its bill, and wave its crest. This may have been accompanied by Glick note, but there was no trace of the typical Glick up and down movements.

Graet raising is obviously aggressive, I have seen birds raise their crest when performing otherwise ritualized attack movements.

Raising of the carpal joints is obviously a flying out movement. Down by birds before flying, upon panic, and after landing. This was sometimes quite evident. The carpal joints were initially somewhat raised during Glick, but never more than slightly, just so that the carps were visible. The fletch bones were full of erratic flying.

I am not sure if Glick notes were uttered by flying birds. I think they were—but usually when trying to land in a crowded section of the group; but one of this note appears to be characteristic when the birds are milling about in the air, after a Select Panie has begun to call down. "Keeeyap" or "Keeeyar" notes. Higher pitched than Glick notes, but also have "rattle." Sometimes uttered in quick succession, but never really high, distinct, rhythm like Glick.

Another call uttered by flying birds when a Select Panie was relaxing was a rapid "Kee biree biree biree biree...." Clear, high-pitched notes—very shore—level-like.

This note was very common during periods of general hostility, couldn't possibly have been "coincidence."

Have seen only one pattern which might have been connected with pairing. Two birds, flying very fast, one behind the other,
with some zig-zagging. One or both uttered "Kuh! Kuh! Kuh!...

nes, fairly long-strung, separated by intervals, with just a very slight rattish undertone. This flight ended on a precipitated drop by both birds (which I couldn't follow).

(Must check the stuff, particularly the dark feathers, with Walker's photographs in "Natural History" & "The Natural Geographic".)

One of the birdmen variant. This pastel orange-pink type (same color as bill) instead of black one.

December 5, 1958,
Antofagasta Bay

I am rather puzzled by what these birds are doing here. Social
paras (at least) of the adults seem to be enjoying numerous successful copulations. And there are always lots of adult around throughout the day. Don't they have a colony of their own to go home to?

These birds have dark eyes. (Or, at least, all the adults I have seen close up have dark eyes). Look dark brown (from distance of less than 10 ft., with glasses). Reddish eye-ring conspicuous. The corners of the mouth area a little more orange than rest of the bill, in some birds (probably just those with relatively slightly orange bills as a whole). Ikreds of mouth somewhat yellowish.

Guts occur during heaise encounter. Most overwhelming frequent, but probably too common to be coincidence.

Have seen diving once during autumn on the field. Usual type, legs slightly bent, but no squat or lowering of breast onto ground. High altitude, V, quiet before or after attacks. Sometimes with wing raised and spread a little. Usually momentary, probably not ritualized.
The L.C. pattern seems to be quite variable sometimes 0 alone can conjoin the fact that it usually contains 6-8 syllables, more often the form from the latter I think. Must count it among I said seriously all the notes are almost the same pitch, certainly no pronounced lowering or deepening on call properties - notes are deep too begin with Have once seen a single phase L.C. in which theintonation was intermediate between 0 & HD, although the notes were typical D notes. Looked almost like one L. (This "L" was given by our appointment "am"

Have seen a lot of HD—O's. The head is often quite far back during HD, (but I haven't noticed any particularly conspicuous raising of corneal joints during HD). Haven't seen any phase HD—HD—O performances.

HD is sometimes at least accompanied by 1, 2, or 3 very soft notes, usually brief, they have very little carrying power, and I can't transcribe them. They may be like HD notes of fieldlark

Considering the size of these birds, they are extraordinarily variable in size and proportions, incidentally, their voice is comparatively weak. Even the D notes have nothing like the carrying power of the comparable notes of the Kestrel Gull.

One year gave repeated L.C.'s (or parts of L.C.'s) from O note quiet like adult, sounds was most peculiar "Whit, tir, tir, tir, ......" sounds less number of syllables as in adult. Of all (Therefore was in approximately and winter plumage - so deduced from Murphy's brief description). Gave this call in observance in the circumstances.

Some of the Gals are probably HD not. Pears. They are exactly like the usual ones HD not. Pears, except that the bill isn't opened and there isn't any brief note.
One very interesting incident. Adult hml gave usual HD int. move, with call; and then, without the slightest pause, kept head going down and back and began to preen lower breast feathers in a perfectly normal-appearing manner. Excellent example of facultative or similar self-licks, or whatever you want to call it.

December 6, 1955,
Aurofogasta Bay

Add a few supplementary remarks to yesterday's notes:

Connective: The eyes are not really black. They are actually grey, just as Murph says. But this is only noticeable when bright moonlight is shining right into a bird's eyes. In the shadow of the eyelids, the eye does look black, the only effect of the greyness there is to make the eye look smaller. It is small at the best of times.

Note: This bird is remarkably flat-headed.

Condition: The carpal joints are usually (perhaps always in this situation) not lifted during O & HD. Sometimes they are hardly visible.

T-HD after attack!!

Bird making long excited flight. Didn't see what happened before or after. Game repeated Lmn's and 2 M notes: "Aow Aow Aow Aow-ooooo. Aow Aow Aow-ooooo...." Then back, lured by itself. This incident suggests that M note is not too close to "pure" vocal behavior (Or, of course, that what I have been calling M note is something else a PEC).

An abrupt stop for Q, after mutual輝, copulation, & T raising. Can confirm general weakness of note. Certain this is of Thute, M note on ground, Q cop call.
December 4, 1955, Autofolego Bay:

General note about these birds. They are certainly "calmed down" since I first arrived. It has been days & days for instance, since I have seen anything that looked even remotely like a feeding formation. Mostly lots of late-stage pairing behaviour now. (Many of the birds are still staying in Autofolego at night. I checked this last night.) Have heard one "row" note by attacker before attack.

December 6, 1955, Autofolego Bay and Tenopillo.

Types of birds have remained much the same in Autofolego ever since my arrival. Lots of Grey Gulls, lots of Elegant Terns, quite a number of Kelp Gulls, and a few (1-4) Franklin's Gulls (all adult.) Had brief glimpses a week ago of a smaller tern, possibly Arctic Tern (looked very grey - and in non-nuptial plumage.) One juvenile Belcher's Gull seen around Nov 25-26.

Amenable of birds at Tenopillo, after Nov 29, was surprising different. Lots of Grey Gulls, and quite a lot of Kelp Gulls, just like Autofolego. But also quite a number of Belcher's Gulls, both adult & young birds, and quite a lot of Inca Terns (breeding in barge.)
There are a number of these birds here, (probably 75 in all). At least 3
birds in complete adult nuptial plummage. Several adult birds in nuptial
plummage. Several first-year birds, in very incomplete nuptial
plummage. The birds are not active. Have seen no signs of pairing, surpris-
ingly little hostility.

Definite ritualized V posture. Have seen one or two cases very defini-
tive eggs (see drawing). Several cases in which the posture appeared to be inter-
mediate between normal egg and egg. One of these latter was adopted
by an escaping bird. haven't
morphologically an egg.

HF definitely present, same as that of the B h g in form. Definitely
produced by a preponderance of escape motivation, seems before, during, and
after overt escape.

In general, the voices of these birds are like that of the bird in the Lina
Zoo. Probably the highest and wildest of any calls I know.

Have heard one complete L.C. in distance. Didn't see the accompanying
postures, but the sound itself was just like the L.C. 's in the Lina Zoo.

The component form of hostility among the birds on the ground here
with LCN often comes in great bursts. Each note relatively short.

these with pronounced rolling undulation of "r". Blue, from semi-0, or
much more frequently a V posture (see drawing). Definitely aggressive: have
seen it precede attacks several times.

Al C. notes given by flying birds, swimming birds, or birds on
ground. Sheep "keek", or, better, "trick" notes. Either single notes or higher
intensity, double notes. Have yet to hear a trillistic Al C. All the Al C's
by birds on ground or water have been given from slight Alarm Posture.

Both short O long LCN's given by flying birds. Short ones occa-
sonally given by bird flying past me. Both long a short LCN's given
by birds circling over me. Long LCN's given by pursuer during pursuit flight.
Long LCN's given by bird during swoop. The long & short LCN's are very
similar. The short LCN's given by flying birds are just like the ones previously
mentioned as screaming during exploits on the ground. The long ones are often
very long ———— but must also be transcribed as "Kreeeeeeeaaa..." but
they are lower than the short LCN's. Lack the "rattle" or "rolling R" undertone
All sorts of intermediate between them. The long LCN's are presumably the equiva-
 lent of, and homologues with, the RCK's of other gulls.

The cackling, noted above, was just like that of the Ring-billed. No
up-and-down movements.

The three cases of swooping & scattering observed occurred when sever-
al birds (5) were circling around me. All performed by one individual. Restrict-
ed in number. Relatively short, but quite steep
pronounced deflection during descent.

The only remarkable thing about the patterns of
screaming LCN's observed, and the bird swooping & scattering, was the peculiar
effect conveyed by the position & relative size of head & neck. The neck was usu-
ally tilted forward & downward, the head also pointing downward, and there was a noticeable contrast between the small black head & the large
"puffy" white neck.

Several birds circling above me, or flying straight toward me,
have screamed a long series of LCN's, the long kind, with very little pause
of any between successive notes. These performances were not, however,
complete long calls. No ———— effect.

I have heard some LCN's by flying first year birds. Usually
brief, although some moderately long. Much like those of adults, but
longer or more "rattle" (?), more like the LCN's of Bonaparte's Gull.
No sign of "erratic flighting" like that of Bonaparte's Gull.
In general, the voice of this species, compared with that of the
Gray-looted Gulls sound as if it came from a small bird.

The bodies of these birds here do not always look ar relatively large.

as that of the bird in the Avia Zoö. Still — they never look small-bodied.

The only pursuit flight I have seen was obviously connected with

food. Some twisting and turning, but no swooping or soaring.

December 14, 1955,

Laguna de Maule

Notice again that the U=brief LCN's often precedes attacks. In

this case, an adult, incomplete nuptial plumage, and it repeatedly before

charging a first-year bird. Once celled U=LCN → U → charge

A brief LCN's also appears to be a reaction to me. When I app

roach, a bird scurries away from the shore a few feet, then scurries along

far away from any other bird, in U (scurrying type — can't be very well dis

tinguished from alert posture) sitting an almost constant stream of

brief LCN's for more than a minute.

Some U's look exactly like mod. e.g. U's of the B H G (i.e. Lack

the prominence toward rear shown in my drawings.

Vermilion inside mouth is very conspicuous during LCN's.

One bird (adult, incomplete nuptial, ??) does R, ni more or

less relaxed posture, when another bird comes close by.

One first-year bird given LCN's from relaxed posture when ad

ult approaches. These notes were relatively "pure" and low-pitched, mig

ht be transcribed as "Keesaw.

One first-year bird goes into H (possibly some — F) + R, then immediate

attacks.

Extreme eg. U by first-year bird.

U before attack - U + HF after attack. U before attack - U + HF after attack
3.00 p.m. A whole new outlook!

Found an island in the lake where there is obviously a breeding colony well-established. About 25-30 pairs probably.

The island is small and rocky (not very large boulders, however).

The only obvious vegetation is a good deal of the short tussock-y grass which is so common around here.

This island is about 1/4 of a mile from the nearest but I can see much of what is going on and even hear some of the calls given by the birds, and some of the birds occasionally fly over to show much aerial hostility over my head, but it is somewhat difficult to determine the exact stage of the breeding cycle represented by the colony as a whole. I haven't noticed any early pairing behavior. Boundary disputes are occasionally, occasionally prolonged. There is little reduced aerial hostility. I have seen quite a number of copulation attempts.

Some of the birds may be sitting on eggs, but some pairs obviously can't have nests (sitting nest by whole on rocks in water). My guess is that most of the birds are just at the immediate pre-coitum stage.

Now to get down to the behavior of the birds.

Lots of aerial hostility by the birds which come to fly over me.

I think that my analysis of the aerial call notes needs to be revised or rather extended, somewhat. The aerial calls are extremely varied, long & short, "pure" or "rasping" (i.e. with a rattle underneath).

The shorter, purer notes seem to be higher intensity than the shorter, more rasping notes. (It must be mentioned, however, that there are occasionally short, pure notes and long rasping ones, although these seem to be a definite correlation between length & purity, i.e. the notes tend to get purer, higher & shriller, as they get longer). The very high, shrill, pure notes are apparently produced by a preponderance of attack drive, as they are frequently given by birds flying straight toward me. These
are not, however, the real equivalent of the LCN. The real LCN notes are long, pure, relatively soft, somewhat lower in pitch, often quavering, sometimes almost trisyllabic "Kee-ee-oh - wal - ia." It is these latter notes that usually accompany the swoop (although the beginnings of some swoops are accompanied by the higher, shriller, long notes) and occasionally continue (in a fading form) into, or even through, the loar.

I have finally heard a number of trisyllabic ALC's, but these are still occurring relatively rare — they only occur at the "highest" intensity or the strongest relative strengths of escape. It is doubtful, or the birds don't retreat from me any more rapidly, or any further, when they give trisyllabic ALC's than when they give bisyllabic or monosyllabic ALC's. It would appear in fact, that the trisyllabic ALC's of this species are never produced by such weak motivation as some of the trisyllabic ALC's of other species. This is one of the more peculiar features of this species.

Some of the birds flying above me have uttered repeated notes of LCN's, issued long, high, shrill, without pause between notes. Again, however, there was no trace of real aerial LCN. I am beginning to think that this species may really lack an aerial LCN, as some of the birds flying above me have always had very high motivation instead. (It is possible, of course, that their escape drive has been relatively too strong to permit an LCN, but then one would expect the LCN to be given by birds that do a lot of swooping, etc. And it is hardly likely that the LCN's I have heard would all be less aggressive than any LCN that the species might have.)

Intermediate notes between LCN's and ALC notes are not infrequent, almost trisyllabic "Kee-ee-oh - wal - ia."

I saw a lot of swoops & loars performed by the birds above me. All conducted, some in marno, some upon other nearby birds flying around me. Some of them were like the ones previously described, a short
of the gannet. (C) A gannet attacks the gannets from above or behind a gannet. (D) A gannet's wings droop downward and upward, and it employs a similar maneuver to the gannet. (E) A gannet employs a similar maneuver to the gannet's tail. (F) A gannet's tail is drooped downward and upward. (G) A gannet's tail is drooped downward and forward.
as a terminal fear

Some men of two "flying" flocks

Several, at least, of the observed pursuit flights were apparently provoked by intra-specific territorial disputes on the ground in the colony (Some pursuit flights included the ones with F's and the ones with both F's and V's)

Also managed to see a lot of ground hostility in the colony, as well as a little hostility on the water.

V. uncommon. Occurs in just the same circumstances as the V's of other species; e.g., with H/F after copulations, with H/F as a low withoutiquoting (without out displays), etc. Forms much as previously described, appears to vary from extreme egg form to "moderate" form (such not as thick as egg V's, bell approximately horizontal). Still haven't noted anything that looked like an extreme adult. Very plumpish form. Noticed at least one bird on ground with tail slung everts, above one V on water with tail above everts. The latter followed F, and it is probable that the back is lowered above everts in V's that do not follow F.

O and F are much less common than V in the colony at the present time. Much as previously described, time it is more apparent that the position O's in the "inverted arrow" are always, on almost always, directed toward flying birds. Sometimes quite about reversed in these circumstances. The usual O's toward other birds. Ground is quite straight method, much the same as of the B's.

It would appear that the O's really quite variable. F's by bird on the water. O-F is often shown by birds on the ground toward flying birds, and it is probably the usual sequence of displays in such circumstances - as
might be expected. I am not yet sure what role D-F plays in "greeting." It is certainly relatively rare at present; but I have seen at least one "greeting" of D-F towards F.

Chelung is my commonest in the colony. Physical form much as previously described; sometimes as vertical as ch. of B kg, and I have seen one case in which tail was lifted above wings (but not spread.) It is obvious, incidentally, that this is one of the species most apt to lift its tail above wings during threat. Remarkable manner of ignoring gives most peculiar effect, especially to V, as tail covers almost and "for ward." Chelung continues doze during both brief & prolonged threats.

Tail bowing is also seen during both brief but prolonged threats. Like ch. of B kg, it often irrevocably mates toward one another during much disputes. I think that Chelung also plays a part in "greeting" e.g. Ch-I, C, I, etc. This is still somewhat dubious.

There is a posture intermediate between A-I & V, and it is quite common.

HF is remarkably common with V, almost all ways present with the posture intermediate between V & ch, and I have seen it once with pure ch. Occasionally in none of the species. At least as possible, the effect of HF of the B kg; much more so then that of the Grey Gull. For instance, almost always a single movement, but have seen one case of "repeated flogging." There was a little unusual behavior at a great distance. F begging from D, postures of F, and movements, yet like those of begging of B kg, except possibly that the actual backward tossing was relatively slight. Each tossing movement accompanied by a very note, which I couldn't hear. Responded by urging in some cases. Just put head to ground or went into well. In other cases, too went into V, ran away, or performed recti-rected ground or aerial hostility. In still another case, F went into V.
gave 3 or 4 HB movements from V, then made mounting call, now. The actual copulations observed (3 or 4) appeared to be just like those of the Bl G. O gave Cop Call, which sounded like "Ka ha ka ha ha . . ." from a distance.

One general note. The behavior of this species is becoming more and more obvious, similar to that of the Bl G in all respects. Just one problem about the O-F-L complex. It appears to be relatively rare, in its complete form. And it may be significant that I could probe it well in the capture level at the Luna Zoo, while having considerable difficulty in provoking O-F. This suggests that the sexual differences between O-F and L include something else besides mere intensity (and besides the fact that O-F is a long-distance as well as a short-distance complex of patterns). It may be that the L of this species has "partly taken the place of" the O-F . . .

December 13, 1955
La Jolla, de Manue

Come back to the mainland opposite island in morning. Am immediately mobbed by 6 or 7 birds from island. Aerial hostility much as yesterday. But the wing-beats of birds changing size, and heads swooping, although emphatic, was no more emphatic or extreme than the wing-beats of Faulkner's Gull or the Bl G. This is presumably due to the fact that there is almost no wind here this morning.

One bird flies around me, giving repeated high, shrill, long calls. In the head-down posture, although it shows no inclination to swoop for a long time, these proportions are almost correct, except that the tail is a little too long.

Laguna de Manue

survives, Dec 14, 1955, III

Have finally discovered an actual Long call, and it is rather surprising! The bird flies around, swooping repeatedly. The form of these movements is quite unusual, but the call is not a Pec. 2 or 3 times high, shrill, long LCN's during swoop, then 20 shorter LCN's during soar. These LCN's get progressively shorter and perhaps slightly lower. The whole series of swoop-soar notes might be represented as

\[ \text{swoop} \rightarrow \text{soar} \]

This seems to be a definite L.C., although the differences in pitch between first and last notes are relatively slight. This behavior appears to be a remarkable specialization.

The tail is closed during the swoop, but spread during the soar.

I have seen another bird do a swoop-soar with L.C.

When a bird flies around, reeling high long LCN's, in posture with head down, it suddenly drops downward, it goes out of this posture to a greater or lesser extent, goes into a "normal" flying posture, if it interjects a burst of ALC's in midst of the LCN's. Then goes back into downward attitude posture if it continues LCN's.

Much to my surprise, there appears to be a nest built on the lake. With fishermen. They land on island, walk around. One of them goes egg-collecting. Finds at least 3 nests with one or more eggs. One nest certainly had two. Some of the birds are certainly in the incubation phase.

Silent Pairs, by birds as fishermen approach the island. Much as usual. Quite slight. Little but noticeable. Birds just fly up, fly over water, circle, and land on water.

Have also been watching a little behavior on land in the colony. One bird, or of pair, does CH-0-F-U+HF-U toward a neighbor who lands too close. Good example, presumably, of gradually declining intensity.

I have seen several more "greetings" of CH-U+HF, and continued (CH+U) = HF-U.

I am fairly certain that the posture intermediate between CH and U is usually silent.
Must have a little that I said yesterday. One inverted arch does occur during ground disputes. But it is seldom or never the brief initial stage of O. It appears when the transition begins to F. This transition is relatively long in this species. The length of the transition, in fact, is probably the complete explanation of the peculiar appearance of the O of this species. The B, G, may well have an O with an inverted arch also, just before it goes into the F, but this is such a fast transition that the inverted-arch O is unnoticeable. (At least, that would appear to be plausible.)

The posture intermediate between V & N is another one in which the body looks particularly large; at least as large as in the inverted-arch O.

The wind has come up again to 10-30 a.m., and it has calmed down the birds in a quite spectacular fashion just sitting around.

Aral flight, brief. Movement to just like swoop - Rose-Mover of Franklin's Gull. Couldn't hear any sound, however.

I am almost sure that this species can't have much in the way of globe.
I would probably have heard a trail of it by now.

In case I forgot to mention it— have seen the pursuer, during more or less horizontal pursuit flights, attempt to peck the pursuer.
I have yet to see the pursuer do any much twisting and turning during a pursuit flight, although I have seen a little. This presumably due to the brevity of all the pursuit flights I have seen.

Some say V's appear to have bill pointing almost vertically downward.

Concealed

In case I forgot to mention it earlier, here is in Fins: the tail is not infrequently above tail in F.
I have again heard a number of first-year birds flying above me,
sounding LN's. Voice quite like that of adults. I have not heard first-
year birds utter the very highest, shrillest, & longest LN's; but this is prob-
ably because I have never seen a first-year bird as "everted" or "upset," as
some of the adults.

December 18, 1935,
Zoo, Santiago.

Dominicanus

A lot of these birds in a pen here. In fairly good condition, but sick
colors (i.e. well & legs) a little pale. Some of the birds quite active in "semi-
normal" behavior (i.e. "friendly" chocking, M., etc.)

M note is a "muffled" plaintive Waanaana. Just like that of
Henry Gull. Pounce a little deeper in pitch
M is often preliminary to choking.

Some of the M - Ch between members of pair appears to be "purring"
"friendly," but a lot of it is abnormally re-direction as a result of fertile coconut
coconuts with neighbors.

HD is usually accompanied by 2 notes. These are "clearer" than M
notes, and usually shorter, but still they are much more like M notes
than are the LN's. This may be significant in connection with the hier-
archy of L and HD portion.

Ch usually done standing, Portia like Henry Gull.
Bill wide open throughout C, but the mandibles do close

very slightly between each note

Some Ch. appears to be absolutely silent, even close up
(Usually low intensity) Often Ch. is accompanied by call exactly like Henry-
gull Gull Ch. Call
The fact that some Ch appears to start in a low-intensity form, without preliminary M, and that some M notes appear to be relatively high intensity and frequently repeated, would suggest that the difference between M and Ch is not just one of intensity.

The "purry," "friendly" Ch or M can presumably be explained in terms of "general" or "reiral" frustration. On the theory that any form of frustration leads to "anger."

Case in which caudal points were hardly lifted at all during HD, then lifted well for out during O.!!

This is not thick during O.

Both Ch and HD-O are common during the more intense disputes here. V common during lower intensity disputes. M common during disputes when mate is present.

Ch sound might be transcribed as "nah nah nah...."

There is every reason to believe that this species lifts its caudal relatively less and relatively less frequently than some related species. Not only is the lifting of the caudal points extremely variable during the LC performance, but I have seen quite high intensity aggression without any lifting of caudal T sound, big T'ing from V, a very soft muffled "uh...." uh.... "sort of thing!!"

Now lots of LC's with very loud HD, one one HC note.

Half-crying from T, with T. This T note is hoarse and snuffled, but rather more like "Keerow" than the T note recorded above. (Bill is kept almost closed, but opened very slightly during all T's.)
Have now heard quite a lot of $T$ calls. All muffled. The 2 previously recorded versions are the extremes. (It is remarkable how weak this sound is — it is quite inaudible even here at a distance of 20-30 feet; although both the M and $T$ sounds are completely audible even conspicuous, in these circumstances) The $T$ note is obviously quite the same, essentially as that of related species, but it is deeper, more resonant, and thus, plus the muffling, is what makes it sound so different.

Birds tend to give M notes apparently when standing by fence to get cherries thrown by spectators.

Hen's naming $V$'s with real "nest" raising, although a few have had faint indications of a nest. In spite of what I quit read about carpri raising, it is remarkable how many egg $V$'s are accompanied by the raising & spreading of the whole wing. This is particularly conspicuous when a stop's stock-still, right in front of

Copulation call is a rather loud

"Ka ka ba ba ... ." Unusual quality of voice. Bill wide open.

Have seen $T^2$ just before mounting, quite soft, remov of

Cop Call, bill slightly less wide open, while standing "leaning over" the $T^2$.

$M$ (sometimes followed by $CH$) often given by $T^2$'s, after collecting nectar, as they go toward what appears to be potential nest-site. Appears to be a form of "calling" the $T^2$. Often follows $T^2$ after joining in with $CH$ at nest-site. I cannot definitely say that the $T^2$ ever gives $M$, in any circumstances, but, of course, it is probable that she does.
The O part of the L.C. is remarkably polyphonic. When "complete," it includes at least 4-7 notes, often up to 9-10.

The L.C. is clearly associated, very often, with the M call, that the relationship between the two is particularly clear.

Once heard an HD with "typical" M note instead of usual note. Have also heard HD-O-repeated M notes several times.

One bird does definite gape (unrealized— as usual) when disturbed by my approach. Still... heathly Gapes seem to be relatively uncommon in this species (at least, as compared with belchers)

One bird does rapid pumping movements when I approach. Obviously unrealized, but probably not "coincidence."

An appreciable change in apparent proportions during V and O displays: head, neck & foreparts (i.e., the white areas) appear relatively larger than during "relaxed" posture. I.E., the bird doesn't look nearly as long and "heavy," unpeg-ed.

A small, immature bird (brown wings but black back) gives complete L.C. with relatively "pure," high-pitched notes, sounding much more like L.C. of Heeney Ful. (i.e.,)

Some birds, especially in rough stages, gives T just before HD-O in heetite situation. Have seen after T's by immatures in heetite situations ("Keen" type)
A lot of these birds, adults and immatures of all ages, on the various beaches along the waterfront of the town. Quite active.

Have seen some interesting aerial behavior.

A group of birds flew up when I approached. Some vague...cutting around one. One of the birds does slight unritualized "swipe and soar (not as intense as the most exaggerated Wing...will swipes and soars) "ni vacuo." Tense of LV's during "swipe (flying)." silent during soar. LW hangs, momentum, in slight...lethal.

Walking along street when two birds (possibly pair?) fly high overhead. Botique complete X.C. One or two prelude...are notes, then 2-2 notes. Only posture was a not-too-extreme O.

Wings continued beating throughout performance.

Heard one of a group of birds flying near me give 4 syllable ABC "Kabababa." Typical chaffing sound quality. There is no...obscured, however, but that the ABC is relative rare in this species...much rarer than many other gull I know.

A smaller number of these birds around in much the same places as the Helli gulls.

Many LV's, by both flying birds and birds on ground. Very reminiscent of the Andean gull; but somewhat more like the B.B.G.

High shrill, but not so much so as the usual LV's of the Andean gull. "Rattle" underneath. Light, buzzy effect. "Kreeeace" or, more often perhaps, "Kreeeen."

December 24, 1935
Punta Arenas
Have also seen a number of displays on ground, but not very well or very clearly. The birds aren't very active.

LCN's usually from relaxed position by birds on ground, but I have seen one bird giving a burst of LCN's from a V or semi-V posture before & during attack. (Very reminiscent of the Andean Gull)

Many "alert" postures. Some of which were probably aux V's, carpi joint visible. A few possible low-intensity aux V's, carpi joint visible.

Definite 0's seen several times. Very much like Andean Gull. Perhaps a slight trace of "rattled call".

Here seems to be an F in this species, but I have only seen the briefest examples at a great distance. Once a brief F not moving, then F not moving. Otherwise F alone. One quite extreme, but not her straight necked.

One semi-F semi-H with trace of R.

In general, this species looks remarkably like the B & G. Its closest relative, however, is probably the Andean Gull.

Much 0-ing and HB-ing by birds feeding near sewer outlet.

Both movements apparently accompanied by relatively soft version of LCN. This is presumably the FB 0-ing. Obviously both T and HB contain a locating element in these circumstances. Before I forget, it might be worth stressing the fact that HB, or at least frequent HB, appears to be a "diaquatic" characteristic of the nidicirrus group.

December 25, 1955,

Panama Canal

maculipennis

There are a lot more birds here this morning. About 20 or 30 by the sewer outlet. Quite active.
I think that it might be better to say that the voice of this species is a strong inter- 
mediate between that of the Andean Gull and Bonaparte's Gull. It has a definite and conspicuous note of the buzz of the latter.

Mary O's and P's were heard this morning. Both are very similar to those of the B. g. uniform. Many F's in themselves. If O and F occur

together, the usual sequence, as expected, is O → P.

Mary O's before attack.

VHF after attack.

There is still a good deal of apparently obsolete material from H. O. There is

really the wrong phrase here. The back and movement of the head is very slight.

In the performance is like the low-intensity topics of the B. g. (E.)

A couple of F's or even P's (very little "emitted call") before attack. Some of the usual L.H.'s are particularly long and quavering.

but most are short.

Almost all the birds here are in complete nuptial plumage, but a few are in incomplete "nuptial" plumage, and some have molted heads.

They heard several mono- and bi-syllabic calls by flying birds in "Kek" or "Kek Kek." Typically high, clear in quality.

Trying to hear the sounds accompanying the ground display pictures. Better difficult, as voice is not very loud, and the situation is not too good (lots of waves, and trunks moving along road.

The numerous brief O's that occur by themselves above or followed by brief F's, are often accompanied by a single long drawn, buzzy, not very loud, "Kwaazzaaaarrrr" once! Sometimes 2 such notes, but this is relatively rare. (The fact that the "typical" O is "monosyllabic" is rather surprising).

The numerous brief F's are accompanied by shorter notes, usually one or two, sometimes more, ranging from "Klee" to "Kreek" to "Kweer." Also buzzy.
I have also heard a number of apparently complete L.C.'s, i.e.,

vocal performances including many more notes. These sounded very much like the L.C. of the Andean Gull. Never saw them very well; but at least 2 notes accompanying extreme O → extreme F pattern.

FB note sometimes just like F note (and both of these are obviously nothing except brief LCN's). Sometimes, however, it is a higher-pitched, shriller, "Kree." Less buzzy than many F notes.

Both F and FB notes are relatively loud; at least as loud as O note.

I have heard some quavering long-drawn notes, very reminiscent of O or M notes of other gulls. Almost "Kree-a-awaaar" sort of thing. But none who were giving them from what posture. They be just a type of O note.

Then seems to be a landing call. About 4 or 5 descending LCN's.

In general — close up — the notes of this species can be translated quite well by Kihm's terminology of "Kweer" and "Kwarp," The only thing this species is none of the shrill, high-pitched notes.

Apparent M.C. o → O → F → V + HF → walks away in V →
Grr → flies off & O → F → V + HF (unless O's, F's, and V's are very extended). V in BAG. Moderate to agg.

will not wide open →

Very BAG — like.

< This is the typical kurz O posture.

Extreme O's are probably characterized by the fact that the bill points more strongly upwards.

Then it is conspicuous; bill vertical or nearly so.
This O portion is often modified just before or during attack. Just as in B l G, head will become horizontal, or even point downward. Just as in my drawing with the

There is an attack call as in B l G. A somewhat stilted, slight

by "broken up" version of L N.

Start repeat and emphasize how obviously superficial the O
t. In B l G, Hey, very common before attack.

F is just as in B l G. Most of them in these circumstances are

obviously low-intensity, short-seconded,uell horizontal. But I have

seen none quite as extreme as any of B l G.

Carpal joints are held very out during attack. O's, F's, and
U's (tuttle effect), but this is rare in these circumstances. Usually,
here the carpal joints are just hang visible—if at all.

Some of the mini-F mini-H, portions are accompanied by
light R, but this is relatively rare. It may be that all F's are ac-

accompanied by light erosion of mantle feathers, but the back uniquely

remains "smooth" and somewhat "smoother".

Descriptive notes: Head appears to be same color as that of the

B l G. Body, the obscure portion becomes less distinct. (At close

look, quite a lot of these birds show a few white feathers near bill—
presumably the beginning of the post-acipital m (not)

Eyebrows are relatively small. Outside of bill dark crimson (inside of mouth, wear

duller). feet and legs crimson, perhaps somewhat lighter and brighter
than those of B l G. (although this may be due to the fact that the bill
are in a late phase of the breeding cycle. General effect of wing pattern

much like that of B l G, see accompanying diagram). Some of the

birds still have a rosy bloom on breast & belly. Proportions appear to

be much the same as those of B l G, but bill is probably shorter & thicker.
Many of the O's + LCN before attacks are not modified; i.e. no trace of "Attack Note" even at the very moment of peeling an opponent. 

May issue sound in group without a landing call.

There is a good deal of "RRO" in hostile situations. Birds peck downward very quickly. As they are standing in water most of the time and in a good feeding area, these pecks are often transformed into dunking or feeding. Also sometimes accompanied by slight head-shaking - then the whole thing looks like "cleaning" the bill.

Have seen a good many more O's now. Some high intensity with or without subsequent R's. Only one peculiar feature. Body is usually (perhaps always?) horizontal or even slightly tail upward. Very reminiscent of Andean Gull.

Body looks relatively large in this posture; larger than in other postures; limit not as much so as in Andean Gull.

Some rather high intensity-cooling O's are not accompanied by raising of the carpal.

I have seen no sign of "tail raising" above the wing tips.

I haven't seen any "choking" either; although the birds often stand in a posture that looks rather "pre-choking".
Have seen Chukar - but unfortunately by bird standing almost
billy deep in water. Vocal form movements. But tail not as high as in
B.A.G. or Audelan (point due to water)
Couldn't hear sounds, but bill was very
slightly open, and the bird may well
have been uttering very soft, rhythmic
repeated, muffled notes.

Have heard a few trilled ALC's. But they are still relatively rare
(Others is certainly far more point of resemblance to Audelan Gull)
They possibly have heard a 4 syllabled ALC

The "Attack Call" might be transcribed as "Kahahakak". Very rapid.
Almost a "fragmented" LCN. (Note resemblance to Belelian's Gull !)
This lends to certain amount of confusion, as it is very difficult, perhaps im-
possible to distinguish between the Attack Call and a 4 syllabled ALC.

Are again impressed by the already hostile nature of the FC note from
H or with H from semi-V. Even used by birds running to attack

Have seen several P's, and even more H, or semi-E, semi-H's, in hostile
circumstances, with R (definite, but not too extreme).

The FC of this species is certainly somewhat peculiar. Relatively few
notes, I have seen many apparently because of F notes with no
more than 5 notes. One or two long drawn, very buzzy notes, with moder-
ately open bill, followed by about three shorter notes buzzy but
choosing plant growing notes in F. (The transition between the 2 portions is rela-
tively rapid --- and usually covered by the latter part of the only occasional
0 note). Bill barely opened during these plant growing F notes. Task wide-
spread during these F's. (Another point of resemblance to the Audelan Gull).
is opined widely during the shrill F-motes (and posibly the tail is not
fanned — or, at least, fanned less widely)

Rhythm of "typical" L.C.'s might be represented as

- - - - - - - - - - - - - - -

I haven't indicated pitch in these dia-
grams, because it is difficult to distinguish, in such peculiar, 1.5-human-
movie-like sounds. I suppose that the F-motes might be shown at lower
pitch than the O-motes, but there is certainly nothing like an energy-
descending series of notes. All O-motes same pitch, and all F-motes the
same pitch.

It is possible that some O's, particularly prolonged, may have 3
notes, but this is very rare — if it ever does actually occur.

The norty lovely semi-H or H structures, with F, might have LCN
motes ("LCN" in broad sense — including Fc notes and shrill F-motes —
if any of these can be really distinguished from one another) are very common —
out of the Audubon Guide also.

December 27, 1935,

maculipennis

Bay of Convene

A little purseing behavior on the beach with rain. Nc's of O → F →
VrHF, and just VrHF.

After this the O's flew up, chased another bird via redirected
permits flight performance. Rapid horizontal chase by pursuer, giving
LCN's, notes intermediate between LCN and Attack Call Notes, then an
Attack Call Note. Followed by very short swoop, and a moderately
short soar (at first flying, then gliding). Attack Call Note continued into
the swoop. LCN's during first part of soar, silent during last part of
soar. (The simple, short nature of this swoop and soar probably close
mean that the reputed fear of this species is necessarily relatively little exaggerated. This particular bird was very aggressive, and one might expect him to do whatever little in the way of display. His behavior was very close to "pure" attack.)

Felt a good view-and-keening of M. By 3, after M.C. Painted in V. On put-beak to proper (only approximating a typical M postures, if that). On stood in "my cocking", neck-1, tail-up posture. Bill closed or almost closed. Movement might be transcribed as "Wakawak", but essentially un-transcribable. Rattled slightly, but not very plantariously. Very strong rolling, "under tone" of "r-r-r-r-r-

a.m. December 29, 1935.

Flower's Bay.

Watching a group of these birds along waterfront. Feeding in a crowded mass on beach. They fly to roost in water for a while. Adults in nuptial plumage, almost complete nuptial plumage, make up about 1/2 of the birds. Adults in winter plumage, or almost complete winter plumage, make up another 1/3. Juveniles (or immatures??) make up the rest

These birds are quite neurotically timid. Have seen quite a bit of low-intensity "pure" fighting or attack behavior, and quite a bit of "pure" retreat & escape, but the birds do remarkably little in the way of displays

The pure attack is quite conventional. Forward & upward pecks usually. (Like my drawing of "semi-C" in B & G, there. Bill opened widely but briefly, blunting much. Conspicuously crested-throat inside-outside. On outside, placket & crest-brilliant toward tip, pale, almost flesh-colored, toward gap."

I don't think that this can be a real ritualized "G" pattern.


Have heard quite a number of Alarms, but they may all have been
lower intensity. A single harsh note, or rarely, 2 such notes. By flying adults or adults on ground (in alert or relaxed posture, I think) they have a hoarse, sometimes screech, sometimes trilled as "Rek", but sometimes "Hakak".

Well! Have just heard adult , supraloral plumage, on ground, give "Rek lack lack" Al C. Just like Belcher's Gull Al C.

The commonest hostile pattern here is T! By guins and also by adults in full plumages. Quite well-marked . More extreme than most of the hostile T's I have seen in the Patagonian Al C's here, but less extreme than the most marked T's of Franklin Gull . Accompanied by Twitter, gives a soft, almost perhaps the most extreme I have seen so far.

However, was its unmistakable hostile nature (in all cases - no trace of RB), and the frequency with which it was given by the attacker after attack - can about half the cases seen - perhaps 45 - 100.

No copulation with T.

Some of these T's may have been silent. At least the call was very soft and the bill apparently closed throughout.

Have heard tule gull Al C by flying bird.

Now we get to the LCN - L.C. business, which is rather complicated.

Aerial LCN is small, hoarse and harsh. "Hakak" to hoarse "Keow". Often given by birds in flight. Usually single notes or several notes with some pause between them. Have heard a large number of notes given by flying bird; followed by a Rapid "Keow", with almost no pause between notes. Given from unusual posture or lack of posture.
Ground LCN is much the same. Usually single. Some variation. It seems to me that the LCN's of this species are extremely variable.

Given from "clear, "potent", or semi-0, or Cracky, detached from semi-0. Obviously distinct, but not usually in immediate association with either overt attack or escape.

Juv. LCN in the usual callie "Kee-a-a-a-a." with definite "rattle" or "rudy" quality. Quite frequent in groups, and I have heard it in the air. Given from usual pitches. Have seen one definite case, and several probable cases, of juv. LCN before attack—T-T note after attacks.

Complete L.C.'s are rare, but there have been at least 10 in the group here this morning. Have had good views of a big adult in full musical playing. Definitely the large LCC type. HD-0 rudy out of thing. The HD note itself appears to be rather peculiar (although the case I saw may have been only low intensity — but I rather doubt it a little). Amusement of HD of great Hics, or even O of Flick & Hartland's Gulls. Head slightly up and forward; head & bill pointed downward & forward.

HD accompanied by two notes "Kee-oo-oo Kee-oo-oo" or "Klee-o-o Kelee-o-o" quite "pure" in tone. Then followed, immediately by O (in all the cases I saw hardly more than semi-0). This is accompanied by 4-6 rapid, almost "pumping" howl notes, getting progressively deeper in pitch. The whole L.C. might be diagrammed as:

Carpal joints are visible through out the L.C. These L.C.'s are unusually active. After real flight no dispute over food and places.

Might add some remarks about adult (both musical & non-musical) LCN, before I forget. Some LCN's are quite "pure", Herring Gull-like. Others are so short and sharp that it have trouble distinguishing them from
On December 29, 1955, I witnessed an interesting T.C. performance by juvenile C. galapagensis (possibly an adult in non-ruptal plumage - but I doubt it). During dispute over a nesting spot, Juv. sitting down, goes into HD posture (like that of the adults in rupicul plumage), utters one very "ready" (almost pure rattle) Juv. LCH, utter quick "T" with Trbles. This is probably most significant in connection with the L.C. of the Rupicul Rupicul.

I have seen several cases of HF (aggressive movement) after attacks. Either unruptalized or very low intensity. From relaxed posture (semi-V) or low intensity V. Sometimes precedes T in certain circumstances.

I have seen a number of "V"s. Either unruptalized, or, more probably, low intensity. Some semi-angles (will like this ->), during aggressive charge and after attack. Some rather wide, difficult to tell from "alert" posture (will like this ->), by retreating Juv. during disputes. In no case were the corps more than just visible.

Must stress the fact that most the T's that occur during feeding are apparently purely hortiite. Close association with actual fighting. The stage of FE (or new burrs wattle and quips repeated T's - almost all their T's are uniform movements - but they are unmistakably associated with fighting).

Juv. returns to the same place. Some amount of blur, doing same thing.

More about C. performance or something. Few out loud do L.C. juj like this morning, HD - C. They followed by definite T movement, another with L.C. and T note. This bur and was adult in complete rupicul plumage. Another adult, in almost complete rupicul plumage, gave repeated burrs of C. (about 3 or 4 minutes) from semi-C posture, nothing more, during various disputes during feeding. Bill closed during at least one of these bursts, and the note did sound muffled. Juv. burrs, (he was particularly aggressive), also gave the most elaborate L.C. performance I have
seen yet. O-HD-O!! Two notes during the first O, regular O notes in quality, but separated by a somewhat longer pause than the notes accompanying O's after HD's (which almost run together). HD notes and second of notes with second O, much as described before. Whole call can be diagrammed as follows:

All the O notes during this performance (as well as all the other O's I have seen today) are remarkably low-intensity, unphysical appearance, look like shrill -O's of other species, head horizontal or even slightly to the side, but neck definitely, definitely forward. As for the HD notes, I was again struck by its resemblance to the O's of the Blue-Gull, head raised high, call "very close to sleek," pointed vertically, almost vertically downward.

Cape definitely lifted out, slightly, during HD.

Had the same call as this last 3 phrases, 3 times more. Possibly given by the same bird, but I couldn't catch the pattern.

Before I forget, an incident this morning. When we first stopped the car, one of the birds in the group stood in semi-U, gave repeated LC's of the pure "Kee-er" type, opening a closing bill with each note. At least 15 in series.

Note about ALC notes. Often occur in much the same circumstances as the ALC's of other gulls (i.e., pre-dawn, suddenly approaching), but also occur in other, possibly different circumstances. Suddenly, another group sitting quietly when I haven't moved, and I can't see any other gulls approaching. Burst of ALC notes (or long, repeated) by bird sitting in to land in group. Would this suggest that the ALC of this species contains a relatively strong attack drive than that of others?? (Remember that ALC and LC of this species seem to integrate)

I wonder if the "complete" LC performance of this species is O-HD-O-T? Would be very nice, from a comparative point of view, if it was.

Note about the very low-intensity U's I have seen. The "eg" type, after attack, show trace of an "aggressive head-out" flapping from top to bottom, in front, and slightly "excited" behind.

This instead of →
General conclusions about comparative significance. The R.C. behavior of this species definitely puts it into the large gulls group. Morphological features would suggest that its closest relative is Belcher's Gull. Some aspects of its behavior (e.g., the visible T pattern) are somewhat reminiscent of the hooed gulls, and it may be that this is the closest thing there is to an "intermediate" species between the two main groups of gulls.

General notes about the physical appearance of the species. It looks like a short, small version of the large gulls species. Almost like a large pigeon with a cocon bell. The bill is thick or short, but much less massive looking than I expected. Its nervous, looking (than I expected). The head appears to be somewhat elongated. Doesn't convey the impression of short compact body like Belcher's Gull. But doesn't look at all long- necked either. Rather nondescript, in fact, and not very attractive proportions.

December 28-29, 1955

Dominicanus
Calleta Josefina and Powwus Bay

Notes on some gull behavior by land put-up by me. Complete gull L.C.'s are common in these circumstances. Haven't been able to see the accompanying pictures in most cases, but in one case at least the gull L.C. was accompanied by both HD and C portraits. The HD posture was less extreme than my showing of the gull HD of the Kennicott Gull—more like my showing of the gull Montere. Kennicott Gull.

Arenarpinnus

December 29, 1955
Powwus Bay.

Have seen some pairing behavior!!! 2 entered by 2 females in a row. Second got approached on foot. Didn't see the approach of the
First q. On beach 2 elaborate MC's. Both mutual O -> F -> U & HF
The first & 2nd HB's repeatedly from E, before flying off
Then F's were very extreme. As extreme as any I have ever seen in the Bg.
Bell pointed strongly upward, base of neck very low, neck as a whole moderately long, campalpoints held very way out.
The ALC notes of this species are particularly loud, harsh, sharp, just about commensal to those of the Dolphin gull

December 30, 1955,
Trowne Bay

n.n. same place, same group of birds
The ALC notes of this species are particularly loud, harsh, sharp, sound
very much like those of the Patagonian Bg., but probably somewhat deeper
in pitch. (Notes averaged.) Note a species certainly have the most emphatic ALC's
of any gull I know.

The three gulls, birds of this species almost always give a LCN note
when flying up from group. Almost always one of the harrier, hoarse, type.
Have seen two more LC performances. One HD-0 like yesterday
(tin level was adult, in full replete plumage). One HD-0-HD-0-T-T
There T's with T-notes. (This level was adult, in half winter plumage).
One juvenile flying about, by itself, in quite an extreme Arctic Flight.
Much the most extreme have ever seen performed by a large Louis gull.
(Not as extreme, however, as the most extreme performances of the Bg. and
Bonaparte's Gull — beyond the spectacular vertical plunges & soaring)

All the levels fly up when a Threat feels overhead. This was obvious along
but not too very intense. The whole performance can be classified as a low-in-
tensity silent panic. Birds flew up with a few ALC notes, flew together, flew-
out over water, circled and separated, landed again.
I have seen quite a bit of pursuit flight behavior. One gull chasing another, one gull chasing a skua. Visual pursuit, quite uninteresting. A fair amount of twisting & turning sometimes accompanied by slight, obviously unintentional, aerial or shallow scoops and "flying" loops.

More about the T's performance. I have seen one bird, at least, dead center T's immediately before attack. Most of the T's do not seem to provoke any reaction in the birds toward which they are directed, but most of them appear to be intimidating, reducing the bird toward which they are directed to flinch or retreat slightly. I have seen some more extreme T's. There are obviously high-intensity T's, but not all of them are being T's after attack. Most of the T's after C's are also high-intensity T's like this.

I have come to the conclusion, provisionally, that the "gentle" or "stolid" appearance of these birds is really misleading. Brief attack behavior is really quite common. And T's are very common indeed. (Most of them are slight). There seems to be little doubt but that the W's are "take the ploy of" of the C's of this species. (LN's are relatively easy prey in this species - at least when the birds are on the ground).

Most of the T's are initiated from a very slight, "relaxed," "relaxed," (almost H posture). If un-actively it returns back more than 10 feet, however, then we are involved a bird gone T from U. This T from U was very reminiscent of HB. Back of head brought down at the bell went up.

p.m. Have seen four more. L.C. performance, all by birds in comp-
plete upright position. There are entirely more active than the other birds.
First, a bird went into "low-intensity C posture" (see above) gave almost 4
muffled C notes, with bill completely closed. Then did 1 definite T with T notes,
bill still completely closed. There was no break of HD in this performance. (Incident-
ally, this was definitely not the same bird that did L.C.'s without HD yesterday).
and the fact that O's are common without HD's and not, apparently, the neurons, would suggest that HD's are lower intensity than HD's. The next L.C. was HD-
O - T - T (both T's with T notes). Four short ling yesterday. Notice a L.C.'s were both HD - O and nothing more. Again noticed raising out of cspad joints during HD (probably the cspad went up against a little clearing and raising the HD). Bill certainly remains widely open during O. No trace of any opening and closing in rhythm with notes. I think that the name is true during HD. It is possible that the bill closes slightly between HD and O, but I very much doubt it. I think that the bill closes or almost closes before first T, and it certainly does between T's. All the O's in this group except the first were "high intensity O's" (as below). One thing about all the HD and O's I have come across is very striking — they all look very, short, quick. This may be due to the fact that I have only seen low intensity forms of both patterns, but I doubt it. I think that this appearance is due to the proportions of the birds themselves, the species is very slender.

The low intensity form of O appears to be very diagonal-like the sketch I drew yesterday. It usually occurs when there is no HD, or when the O's short and the accompanying sounds are weak (although there are exceptions). It is interesting, therefore, that T is O appears to be identical with the posture from which these birds usually deliver brief pecks, (although it seldom opened as widely and clearly as the low intensity O as it is briefly, during pecks.

The high intensity O posture is like this.

This posture may also occur only in the relatively rare (in this circuit) actual or true scuffle develops. It is certainly a posture from which actual pecks are delivered.

Notes about all notes on ground, and presumably in air also, the bill is quite widely open and shut with each note.

As a sense of today's observations, I would say that the "usual" or "complete" form of the L.C. performance was HD - O - T, (with T not infrequently repeated).
A few more notes about the physical appearance of these birds. Adults in complete moulting plumage are almost white at base of bill, have white eyewhiskers which are fairly conspicuous. Red eyering quite noticeable. Light eye. Dark hood of adults in winter plumage and juveniles is very conspicuous, but perhaps less external (doesn't appear to reach quite so far down neck) than that of Belcher's Gull. These birds also have white eyewhiskers. (The white eyewhiskers are fairly thin and small.) This is one of the species, unlike Belcher's Gull, in which the adult has white in front of eye, forming an "outline" conspicuous against black of wing and in part, against black of back. The pearl-grey tuige incidentally appears to be darkest at base of back of neck. Colors of bill (in the most vividly marked birds I have seen) is as follows:

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  light (almost orange-flesh color)
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  crimson, vinaceous
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  there sometimes appears to be a dusky smudge here, almost like a trace of a wing of black
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December 30, 1955

Pearson's Bay

Journal (bird, apparently first-year, green-brown, with light markings) flies in pursuit of a Shula, then wheels off, flies toward group of gulls on ground, gives complete aerial L.C. display. The L.C. was quite like that of adults, except that the notes were somewhat "watching" in quality. As far as I could tell, the only posture accompanying this L.C. was a neck curved slightly upward and stretched toward forward. This sort of string... The really didn't fit 3D or D.

Further evidence that juvenile gulls are quite "capable" of producing elaborate courtship displays like those of adults. It is just that they usually don't in the circumstances in which they usually find themselves...
Have seen quite a few more cases of aerial L.C.'s by adults today. Usually buds flying over me and obviously disturbed. Can definitely state that the wings continue beating throughout most (and probably all) aerial L.C.'s. One interesting case: Adult bud, with food in bills, was pursued by another adult bud. Very rapid, prolonged pursuit. The pursued bud halted 2 or 3 or 4 complete L.C.'s during the chase, some of which were accompanied by ritualized postures.

A note about pursuit flights. I have seen quite a number of them in the course of the last few days. Much rapid twisting & turning. Usually a few short, shallow, obviously unritualized, sours with beating wings. A few short, shallow, obvious unritualized sours with beating wings and "gliding" sours.

December 30, 1955
Dominica, soumern Bay.

Have seen several more cases of M.C.'s of O → F → U + HF

Have also seen several cases of O → F by buds on ground toward flying buds, just like B.h.G.

This species also has a definite ritualized "swoop-loar" complex.

Have seen several forms. Once, a bird chased a flax in air, made repeated, very long, gently sloping sours (flying) and loars (both flying and gliding) at the flax. These were almost as extreme as the most exaggerated sours and loars of the B.h.G.

Also some interesting behavior toward me.

Quite a number of birds, flying by along the shore line, have stopped to circle me. Have uttered usual aerial L.C.'s, etc, and also, many particularly long L.C.'s, slightly quavering, almost "Kee-a-dr" notes. They are probably B.C. notes. Sometimes, at least, accompan-
red by unusually high, greater amplitude than usual.

Some birds, circling around us, have also performed short, shallow,
flapping sweeps and flying or gliding bears. Some of them are redirected in
vain. When the sweep is accompanied by PCC notes, and the bear is
accompanied by weaker PCC or LCN notes. Sometimes, however, these
sweeps and bears were distinctly oriented. Then the sweeps were accom-
panied by a somewhat peculiar series of notes. Several times, at least, different
birds did not note → all notes → attack call during sweep.

This sequence of calls suggests that, the all notes of other species, like those
of the Bonaparte Gull (.), may contain a relatively stronger attack element
than the all notes of most, species of gulls. A closer visual analysis
suggests the suggestion that the "attack call" of the Bonaparte gull
consists of a "combination" of ALC or LCN, of, rather, that the Attack Call is
a less fragmented version of the LCN than of the ALC. (I must admit that
I have great trouble in distinguishing the attack call of this species from
a my rapid series of all notes). The bears following these sweeps were
accompanied by PCC or LCN notes. The whole sweep-bear performance in
these circumstances can be diagrammed as follows:

I am fairly certain that the buzziest or "turbulent" aerial LCN's, those
that are most like the LCN's of Bonaparte's gull, are uttered by adult
birds in non-nuptial plumage and/or immature.

I have heard several bears utter long series of LCN's in my rapid succession. All the
notes were more or less uniform in pitch.
Another L. c. performance, by adult in complete or almost complete
white plumage; HD (note baldness) than those previously described, more or less
"Kreeaar, Kreeaar..." -> O (very brief, only one note) -> T with T note ->
T with T note.

The fact that HD may occur without, or with very little O, might sug-
gest that the difference between HD and O is something more than a pure "contin-
uity" difference.

I have seen several very slight R's of many the features after attack.
Any kind of wind or continuing feeding, adrotas, fallstags and gurnards
Only in the case of one gurnard, however, was this R not at all conspicuous.

maculipennis

A lot of miscellaneous stuff seen today.
A flying bird, with food in its bill, chased by Kelp Gull. Much twist-
ing and turning, small forced to drop food. Then flies away, cutting
long- drawn, low notes. "Kreeaar, Kreeaar..." These sounded very high
pitch. Note less quavering, however, than the notes I called Per c notes
yesterday. Actually, I doubt if anything like real Per c notes should be dis-
tinguished in this species. The notes I have been calling Per c notes, although
almost certainly homologous with the Per c notes of this species, are probably
nothing more than high-pitched, LC N's in this species. The fascinating
thing about this performance, however, was that the first a long notes were
delivered from an extreme aeral O posture!!! Accompanied
by beating wings. Humped more into
progressively shorter notes, progressively
the bird circled and landed. Then the whole
series of notes can hardly
be called a complete aeral Long call -- the last half was a Sandguy Call.

December 31, 1955,
Bernard Bay
Another, somewhat similar, case. Again a bird with food in its bill chased by Blue gull in long pursuit flight. This time the pursued bird uttered a whole series of three long LCN's, in extreme O position, with the food still held firmly in its bill!

Have seen several more M.C.'s. Both O-F-U+HF and U+HF types.

Have seen two different larks, during M.C.'s do O -> E+HF -> U+HF.

Heard a flying bird with an avial LCN just like “Kwinn” of FA & G.

The landing calls of this species are really unusually elaborate, quite as elaborate as ground L.C. (and sound just like some ground L.C.'s).

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Speaking of ground L.C.'s (and this may be a repeat), the usual series of notes is certainly one of increasing brevity and depth of pitch. A very common type might be represented thus:

0

\[ \text{Occupation} 0 \rightarrow \text{F} \]

The recent “trick” to “scram” behavior I have seen recently is mutual "FB" Both birds Tying from H. Then if you go up into U, does one extreme HF, relapses into Tying from H. Then both birds relax & shut up.

Have seen another flying bird make a silent "swoop" (flyinh) and hear "flapping" toward a thun. This time, however, the thun was standing on the ground, and the swoop and doar, although moderately steep, were relatively short. Not repeated. On general, none of the gulls seem to be as upset by the presence of thuns as are the J American Farmers).
They are quite a number of these birds here, and they are quite active both in the air and on the ground (and even on the water), but I haven’t been able to pay much attention to them. They are around near the Dolphin Gulch.

As far as I can tell their call, and they certainly have a great variety of them, sounds just like the Common Tern.

All the birds appear to be incomplete sexual plumage, except for one or two with a little white on the forehead.

They definitely have a distinctive posture. Often used as a greeting. Has this just like that of their relatives. Sometimes ap—

The bill is slightly open, I think, in rhythm with the movement that, during MC’s, is a premeditated call.

Often some, sometimes decreases, the call stops while the posture is still maintained. “Lower intensity” forms of the pre—

Here is also a see-see complex. Little lowering movements, very rapid, from ST. The posture at the bottom of the low is reminiscent of the "Bengestill-weg". Often extended.

This see-see is definitely accompanied by the "Kaa-haa-bea..." call. The whole performance, with its call and its down-up movements, is very reminiscent of the Gulls of Franklin’s Gulls. And also the pattern I interpreted as Gulls in the Elizabeth Gulf. The only see-see I have seen was performed by
Kauimekawa, Dec 31, 1955

Both birds of a porcelain plate. Having a dispute with a neighbor on the mud flats, while a whole group of birds was resting.

The "Kauimekawa" call is certainly also given by flying birds last Sunday. The short movement and position of my hand I have examined times leaving a perch or on the ground. These movements are very, very, very long. It is interesting to note that they are all followed by long, sleepy flying knots.

December 31, 1955
Pouowai Bay

Have occasionally watched a large group of birds feeding on mud flat near the outlet of small stream. The only thing that impressed me there was the frequency of the notes or obvious hostile communication. Quite often given by birds not near the water. (Do not know that there were present in the crowd). All this very reminiscent of the Kauimekawa. And Dr. Muneo was right in tracing a communication between the Kauimekawa and the HD notes.

January 2, 1956
Pouowai Bay

There have been two performances. Unfortunately, without seeing the accompanying parties but they were obviously HD-0 or T with notes, and HD-8 or T with T notes. The most interesting thing about this last performance was the fact that the 8th continued at least 30 minutes. The normal performance, here of a bird on the ground several seconds before bird of the same species flying -- low -- overhead is a T with T note.

Hence need a V or HP nail after attack. By one adult in full display just below when an adult in winter plumage or a juv, approached too closely.
Well! Well! Well! This species does have a complete aerial B.C. One heard it given by one of a pair of adults in more or less complete warmed plumage flying away out in the bay. Once by an adult in group of birds flying over stream who came upon me suddenly. Unfortunately neither can I recall the accompanying posture. (There might have been H and O postures but I certainly can't tell.) Both performances included “O” calls of many syllables (at least). In the case of bird near bay the wings continued beating through the performance. In the case of bird over stream there was a tendency to glide (I don't know exactly when it began), but the bird was gliding in to land on mudflats anyway.

These seem to be some retention of group-bounds in the birds in the group here. At least, I have frequently seen a birds stick together, coming for long periods of time, without any signs of hostility.

I wonder if the fact that the birds almost always give LCN(s) when flying up from group is sign that the LCN is not purely a territorial signal, but a sort of generalized threatening action??

I think not. I have just seen about 6 or 6 cases of birds flying up without LCN. And I think that it is obvious that the larger the group is, and the more tightly packed it is, the more likely birds flying up from it are to give the LCN. I must be hostile too.

I have just heard another B.C. Obviating H & D.

A slight correction to one of my earlier bits of description. The species does have a little white along front part of carpus (particularly underneath, toward its rear), and the light area that is particularly conspicuous when the carpus are scored or a streak of grey body plumage between front part of scapulars and the capes (I must check this directly along carpus small species, perhaps).
This species probably has a hootie Gort pattern, but it is very difficult to distinguish, as I always see them on potential feeding grounds and the Gort movements I do see could be very easily feeding out, not. Still I find sometimes Gort when "nervous" at my approach, and sometimes when they are, overt intraspecific hostile behavior, going on in group, and this sometimes appears to be unconnected with feeding. I must say, though, that I don't think that they give hootie Gort's nearly as frequently as the Beleker's Gull I saw a month and a half ago.

_ana chlorinii_

January 2, 1956,

Vicer Gorle Grande

The Mark and I visited a large colony of these birds, very lively, today. Found scores of all young, apparently adulted. The young birds are found ranged from a few days old to 1/2 - 1/2 grown. I couldn't manage to see much behavior, but a few interesting facts emerged.

The ABC of the Huna, even at apparently high intenities, is only a monosyllable or disyllables deep, medately always hearse "Huh" or "Huh huh" (It is possible that tryyllables ABC's occur, but I rather doubt it)

The relative few notes in this ABC would strongly suggest that few-note ABC's are prominent (They have this far been found in tours, all hooded gulls, with one a two possible exceptions, and two large gulls besides the Huna).

The inside of the mouth of a hoot with a broken wing was light turquoise or, noting, bright aquamarine blue.

The aerial ABC given by flying birds when we disturbed this colony was a 5 - 7 note affair. Notes deep because, deeper because, than those of any gull I know, but somewhat similar. The whole performance might be represented as: — — — — — (I am not sure whether it really went up in pitch in the middle, but it definitely did become strong —
en thin). Unfortunately, I couldn't tell which birds were opening the calls (there must have been 50-100 all flying about rapidly, usually high in the air), and so I didn't know what patterns & movements they accompanied the call.

I saw all sorts of violent aerial hostility within group of birds. Rapid, twisting dances; aerial fights; fast, long, rather shallow swoops; a few gliding soars; a lot of flying scours, etc etc.

We were dive-bombed (i.e., charged and/or swooped at) repeatedly by the enraged parents, (who rose again each time with a flying scour). The interesting thing about these attacks is that all were silent. The same thing was true of all the extra-specific attacks I saw. This was most unexpected.

We picked up 2 chicks in our hands. One was at least several days old, the other was at least a week old. Both gaped & lunged, but were absolutely silent. Like some old Franklin's Gull chicks, after being held in hand a while. Quite in contrast to a young Herring Gull (about a week old) which we also picked up today, and which gaped, lunged, & screamed gibber screech even in our hands.

January 2, 1956
Powder Bay

An uned note on stuff I have almost forgotten:

A bird flying around in air, uttering LN's, moderately long, moderately close together, but the bird was definitely separate from an extreme O posture. In other words, in this species, the extreme sexual O posture of this species seems to have become definitely associated with a vocalization which is low, uttering LN's in other species.

This, and the fact that I have seen all sorts of apparently high intensity sexual Courtship behavior, without LN, is beginning to make me think...
that this species doesn't have an aerial ch. At the very least, the aerial 
ch. of B. b. g. must only appear at very much higher intensities than some other species.

I have seen an extreme egg. Upright—just like my drawing of the corre-
spounding posture in the B. b. g. in my thesis. Have rounded rear of head.

At last! Choking. On a reasonable scale under the microscope.

But no posture like less extreme ch of B. b. g.

I didn't notice muffled version of call of the "fee-a-a-a-" type.

This is exactly similar to the "low intens-
ity" ch. of the B. b. g. with "A feeding call!"

The fact that I have seen no little chs and yet so much high intensity ch.

and F. would certainly suggest that the ch. of this species cannot appear at such
low intensities of motivation as the ch. of the Andean Gull. Must be more like
the ch. of the B. b. g. in this respect.

I have seen several "A" as well as "V" before attack. It seems my theory
that the "A" of this species, like that of the B. b. g., is often, at least, a relatively
very aggressive pattern.

Humboldtia and nica.

January 3, 1956,

near Guate Grande

A few notes on the behavior of the S. American Tern, based primarily on
observations made along the coast there, in or near various breeding colonies
with some comparisons with behavior of the Ducula Tern.

I noticed in Porvenir Bay, that the S. American Tern has a Benetete-like
but I can't say anything more about it.

The usual call given by the birds that fly above one's head, when
one enters a breeding colony, is a succession of not-very-close together, very
Common Tern-like, "Fee-a-a-a-a" or "Fee-a-a-a-a-a" notes. Just like the
Common Terns at Folkestone. This is the note which I always thought was
the homologue of the "ten of gulls." It is certainly, in the S. American form,
given from a posture resembling an aerial Albatross.

The fish-carrying bird during Flock Flight is called this species certainly
has plenty of them), utters a "Kaa kaa kaa kaa .... " call which is very simu-
lar, possibly identical, with the call I heard during Scooping on the ground.
Such facts are beginning to make me change my mind about the
relationship between the Inca Fenn and the Hestia terms (seen later). They
may be fairly close after all. I wonder if the "Kaa kaa" note is homologous
with the Rap of the Inca Fenn ?? (Both notes are certainly given as a react-
tion to a predator or potential predator on the ground. And the "Kaa kaa" note of the Common Fenn on the ground, is certainly given from a semi-
shrieked, nori, postur like that from which the Rap is given). And I wonder if
the "Kaa kaa kaa kaa .... " form of gulls is homologous with Chat ?? (The
notes during Scooping are not very different, in fact are very similar to the
and Chat notes during Chat). The rhythm of the call in both cases is a high
intensity rhythm. And it should not be forgotten that the call of the fish-car-
ying to Inca Fenn on the ground is also Chat like notes. And I also think that
when water "scoop" together, in a dispute with a third bird, they sometimes
tend to reduce their Scooping toward one another — rather like the reduced
acted Chat of Inca Fenn waters). All this is certainly very suggestive.

One aspect in which the Chat of the Inca Fenn differs very decidedly from
the "gull" of the Hestia terms, however, is its relationship to the "Alam call"
I must add, since I forget to earlier, that the "Alam" nature of the semi-
shrieked "Chat" notes uttered by Inca Fenns flying up from a potential predator was
particularly clear at Tronopillo, where many Inca Fenn pairs were nesting, scatted
in the landing hangar. All the Inca Fenns seem to have their "He-
like" syllables as Alam Notes — something which the Inca Fenns seemed to
lack completely — in that particular form at least.
January 3rd, 1956,

Grande and Pomeroy

Notes on the actual L.C. performance, which I have seen repeatedly in the
birds flying above the land near Grande and the birds flying along the
coast near Pomeroy. The "air" phase is usually shallow and short, and not
always accompanied by the "O" posture. However, it is often very long, (1-3
syllables) and then I know it happens! The "air" phase is
sometimes at least, the belly looks particularly plump in the "air" phase.

The space looks long-winged in the air. The appearance is due to length
of the body, not that of the head or primaries.

B. noticed about 3 juvenile H落 gulls feeding with the Red-breasted gulls
by the coastal factors. Just feeding, most of the time, but they occasionally
get away (usual large laws "plains type", quite high pitched or "pure"
in sound), usually with slight trace of I movement, now feeding posture, or
allowed posture, or even H (more often). This did not seem to be an out
directed toward adult H落 gulls. Have repeated as E.B. Too oftenly it is certain
ly not accompanied by any F.B. feeding movements toward bell of head toward
when the display was directed. These single T notes, in fact, were very reminiscent
of the T notes. Jopes the Gulls. I think they must have been hostile reactions
provided by the close approach of other birds, other H落 gulls and possibly Gulls
This is of some comparative interest.

B. noticed how polyphrases the L.C. performance on the ground. Frequently, the O contains up to 10 notes — sometimes more. It is certainly
my impression — although nothing more — that this is more polyphrases more
often than the L.C. of any other gulls I have heard.

Two M notes (little opening very weak, and closing again between notes)
from extreme, moderately, and in obvious hostility disputes. (This is rather un-
the other M's I have seen, which have been given from the usual "marine
M posture.

Must add that I have heard a few 5-syllable ABC's, by flying
birds, but they are still very much rarer than the
4-syllable bird. [signature]

January 6, 1956,

Furness Bay.

Both yesterday and today I have heard a call, quite different from the
Centrella factor, that I had not heard, or had not noticed before. A "Tuck" or
"Tuck tick" or " tuck tuck Tuck", a few only, very much, always, not
very sharp. Occurs when the birds are running along, in a rather tight, joining
man, when a new man of Centrella debrief as apparently appeared, rather suddenly,
in the "day-card" stream from the factor. This call could be either modified
probably low-intensity version of the ABC or a low-intensity version of the LC.

I am inclined to think the former. Still, it is quite distinct — not as the
sounds go.

I have seen a bird who pronounced "G", over its shoulder, during atten-
tate, after being attacked. Although the "G" pattern of this species is probably un-
ritualized, it is usually very conspicuous because of the bright orange-
mountain color of the bill and the white anchor of the nape, (brightest, least
bright perhaps, at the corners of the gaps).

This morning I noticed quite an unusual number of unusual, where
V's (unusually extreme in these circumstances — probably low- to moderate
intensity, in reality) after attack. Carsed joints quite definite, out forming thin
V's were quite "aggressive" in appearance, either approached the "our" nape of
bill or, although the bird was never as "flattered" as they in front, as during
real "our". There is no problem untraced line. The V's who do attack ap-
pear to be more lightly motivated, in some "strained" than those who "in
the same circumstances. So this really no? If no, what does it imply about the
general arrangement of low-intensity "near distance" (and that is certainly.
near-distance pattern—after at least?)? I doubt that I can decide this on any present evidence.

A few more descriptive notes. This species has a pronounced spectacle when flying, i.e., an extremely broad white band along tops of secondaries. Also a wide "band" along tips of all but the most distal primaries—"(actually a ring of white spots or, most of them)". The species does not, in spite of its relatively small size, appear distinctly long-winged. It doesn't look like a particularly awkward form.

Then another complete ground L.C. Obviously 10-9-17

First thing to seek clearly is the T-pattern in the juvenile, the formation resembling that of the behavior of juvenile pigeons in former years. (It is remarkable, as noted earlier, how the juvenile pigeons, in some groups, use the T-pattern like the Wood Pigeons). Does this mean that the frequent T-pattern of Sedge Gull is a primitive or a moronic character?... Good question.

Note about the five L.C. gulls by juveniles and/or minatures. (These seem to be only one "young" plumage unit group — dark hood, brown rimming, still dense, bill (like young Baeders's Gull). It is very difficult to tell exactly when a few this occurs or the ground, as it is very brief and almost always occurs when the birds are bunched together and very active feeding. Certainly correlated with little flames of actual attacks or fighting in the group. Certainly sometimes given by young birds after being attacked, i.e., of course, associated with some actual retreat or flushing. Probably (almost certainly), by some young birds, at least occasionally, put before an attack. In any case, it is quite obvious a primitive pattern and higher intensity than the T pattern.

I can confirm the fact that the T-pattern is the one given by birds on ground, both young and adults. Toward birds flying overhead (But only birds flying close overhead — they don't react in these circumstances to birds flying high.) Still not a trace of a Landing Call!!
I have again, several times, heard adults give long note (sometimes not even "muffled") with movement. Once, in fact, I heard an adult (upright plumage) give 2 long notes with one T.

Although some T notes are apparently given without T movements, when the birds are particularly hungry feeding), and some T movements are given without audible sound, both variations are relatively rare.

Some T's occur without visible opening of bill, either with visible or slight opening & closing. The note sounds the same in both cases.

The birds, on the whole, seem to be even less active and returned from Guana Grande than they were before I left. And the group has diminished. There is certainly no reason that birds are leaving or from a breeding colony as the breeding season slowly draws to an end. I think that I must have missed the breeding season completely.

January 6, 1956,
Powerni Bay

mancupennis

More aerial stuff

Flew near several cases of short, moderately steep, swoops with the long LCN's. Flying swoops followed by silent faces, either gliding or flying. Usually preceded same. Sometimes directed at we, but usually "redirected in manouevres.

Yesterday noticed an interesting performance of a bird being dived bomb at repeatedly by a American tern. Low back & flurry in a relatively limited area, in an extreme erratic flight (almost reminiscent of immaturity Bonaparte's gull). This erratic flight incorporated a number of short, steep, swoops (flying) and face (flying). The whole performance was silent—except that all the swoops were accompanied by 1, 2, or 3 of the long LCN's.
Have seen a bird utter repeated long LEN’s, call on one pititi—definitely not the usual landing call, as it came gliding with wings half folded, to land near some other birds of the same species. In our area, noted O-particles (all the cutter extreme around O’s) and long usual LEN’s, have been accompanied by beating wings. Thus, this incident would suggest that the presence or absence of wing movement is solely dependent upon the aerodynamics involved.

Have seen a O’s on mudflat, display with one O, walk over to a second O, display with her, then walk back to the first O, and go through another display with her. All these displays compared mutual O → F → U+HF → V. This was very reminiscent of the early pairing behavior of the B & G’s as we saw it near Temelton there, before the occupation of the colony area. Need be the famous “autumn recuperation” in this case.

January 8, 1956
Puerta Arenas.

General note about the birds found in the Magellanic Region:

On the mainland in Puerta Arenas harbor, both H elegans and Patagonian B & G’s have been common all the time. A few shags around both before I left for the island and after I came back.

On the island, from Calleta Dona Sofía to Santa, the H elegans were equally common and the Patagonian B & G’s even commoner than they were on the mainland (although still not as common as the H elegans in most places). Shags were somewhat more abundant than on the mainland. There were also other species on the island which I have not seen on the mainland. L. American Jenua and Dolphin Gulls. L. American Jenua were common everywhere and had colonies scattered all along the beaches. Dolphin
Gulls were much rarer (certainly big for the remnant of all the lands) but thin and little groups (5-30 birds) here and there along the coast, usually near Antarctic stations, and stray birds of gulls might be seen flying along the coast almost anywhere.

The only visible change I have seen in any of the birds during my two weeks at the is a slight increase in the number of Patagonian B-b-b-b-b's moulting out of nuptial plumage.

January 19, 1956

Cartagena

A note about the gulls I have seen around the Lago de Peral where I have been watching Ruddy Ducks.

A number of Franklin's Gulls have come to the lake from time to time, to bathe, occasionally sitting or sleeping on poles in the water for considerable lengths of time. Both immatures & adults. At least 2 adult Patagonian B-b-b-b-b's have done the same thing (one in complete nuptial plumage, one in almost complete nuptial plumage).

Large numbers (10 or 12) Kelp Gulls have come to the lake from time to time, just to bathe apparently. All ages. There are even more on the nearby beaches.

There are also quite a lot of Grey Gulls on the beaches. Mostly adults in nuptial plumage and/or immatures.

There are always quite a number of terns flying & feeding off shore, quite close to land. Presumably fratercularia.