Sangera, I

November 4, 1957
Paso Colorado

Lots of these birds around the clearing.

- Plain Sangera = cinerata
- Golden-marked Sangera = larvata

The CN of the Golden-marked is relatively loud and loud (compared with the CN's of most tanagers of other genera) and comparatively frequent. Often uttered in series when the birds are flying about actively.

The Plain Sangeras seem to have the same wing and tail-flush and most other tanagers and the same CN's as the Golden-marked.

Their CN's are sometimes suddenly greatly increased and turned when one bird flies off, particularly when a flock flies off. Form little balls. Much faster, more numerous notes as a ball than in any call performance of any other tanager genus I have heard. Almost a sort of "song."

This is in truth the most highly novel of the tanagers around here now. Finds in large numbers resting flocks of 10-20 birds. One of the flocks seems to have a single Blue Sangera associated with it!

Sangera, I

November 6, 1957
Paso Colorado

I am now fairly certain that there is a real
Saugara, Nov. 4, 1957

difference between the "high intensity CN" pattern of these two species. The Golden-marked seems to lack the thrill of the Plain completely. It utters an accelerated series of notes when it flies off, but this is not differentiated into a morphologically distinct pattern.

Saugara I. November 11, 1957
Rio Chaves

Today I heard for the first time, what may have been the "song" of the Plain Tanagers. By a bird feeding in Cecropia trees. From a quite unritualized posture, apparently with food in bill. Just a series of notes: " Whee whee whee whee whee whee whee whee whee whee whee " or " Whee whee ... "

Saugara I November 17th, 1957
Barro Colorado

During an apparent dispute over food (Cecropia fruit) one of the Plain Tanagers said definite G.

It is my impression that not only are the Golden-marked Tanagers much lessgregarious than the Plains (tending to go about in pairs rather than larger groups), but they also tend to ignore the Plains (much more so than the Blue or Palm Tanagers). I have just been watching a pair of Golden-Marks feeding quite peacefully and at length in an orange tree.
and paying absolutely no attention to occasional flocks of
Plains (with one or two Blues & Palms) flying overhead
Jaugara, I

November 27, 1957

Breno, Colorado

There are even more abundant than the Tanagers in
and around the clearing.

Plain Tanager = monnata
Golden-washed Tanager = carvata

The Plain Tanagers are most abundant and queer-
voiced species here. Small flocks (including up to
10 to 15 individuals) are constantly flying back and
forth and all around
the place - feeding on grass, fruit, leaves, etc. etc.
Usually fairly high in vegetation and often in the
tops.

The general habits of the Golden-washed are very
different. Usually go around alone or (more often) in
pairs. I have once or twice seen a couple of pairs
more or less together, but that's all. Very quiet and
quick-moving like the
Plain, but much more likely to come down into
mod-
ernity low vegetation (although often high in
trees too). I
have never yet seen any Golden-washed who seemed
to be really associated with a flock of plains.

The fundamental CV of the two species is very similar
or identical. A comparatively sharp "Tsit" Compara-
with frequent in both species too.

The Plains utter the CV's in rather rapid series or stag-

fly about, but when a flock flies off suddenly, and in other

apparently "high intensity" situations, there are suddenly
accelerated into a definite Trill (NTF). This sounds almost
like a "song" but I don't think it is really the functional equivalent of the songs of most other passerines. But I must say that I have never heard anything else which might be a real song. It would be nice, of course, if this highly gregarious species with comparatively plain plumage, should turn out to have degenerate display behaviour—just like the *spice-finch*—see also Hutch.)

The golden-mantles may also utter accelerated series of CN's when they fly off, etc., but there are accelerated much less, i.e. they are not integrated into a real *hurr*.

Both species have the usual *tangara* TF's and WF's, usually synchronized with CN's in the usual way.

I have once or twice seen *Platycercus* do a G-toward attack among (including a *Salmon-Tawny*) during a dispute over a Cereque fruit.

In general, however, they don't get involved in much disputing over food.

I have seen one or two aerial rough-and-tumble fights (without being able to see what provoked them, or what followed them). Accompanied by a loud irregular sequence of harsh, hoarse, notes, presumably some form of HAC.

Bano Colorado

A *T. Golden-Tawny* came to the tree just above the aviary and uttered a lot of sounds in about 2 minutes before flying off again.
Eventually repeated alternations of CN's (or similar notes) and a perfectly mechanical Tull (T) which may have been a form of "song".

The CN-like notes were uttered in series. Usually a definite interval between notes, but sometimes slightly accelerated. I think that these may have been the same as the CN's I have heard uttered by birds at greater distances, but at least close up like this, they sounded particularly harsh & loud (but not hoarse or nasal).

Attended from completely unartificial posture, bill opening & closing with each note, some slight TF & WF (both synchronized with the notes and between notes).

The Turrut which these notes were alternated were also given from completely unartificial postures, more or less forward inclined, like the Thraupis tanaeare kept open throughout. It seemed much less harsh, and there was absolutely no. between the two vocal performances were quite rigidly separated in both rhythm & quality. I can't really say what the cause of these performances was, but I imagine they were more or less hostile, provoked by me or (more probably) the birds in the avairy.

The unartificial posture accompanying the T. may be taken as further evidence of the relationship between Thraupis & Tanaeare.

Although, in the normal course of events, in a mixed flock, it is usually the Blue and Palm Tanaeare who follow the Turrut, I have

seen Clews fly up to follow Palms.

Jangara, I

I have caught a lot of Plain Tanagers in the nets, and let them all go, but I have noticed that they tend to utter harsh notes when handled (quite like those of the Green Honeycreepers — see today's notes).

Jangara, I

A golden-mark flew straight to a tree in which the Hummer Tanagers (see today's notes on Jangara) was giving a lot of R's, perched at the other end, with much T F W F ' s, and CN's, and then flew away. This bird seemed to be definitely "attracted" by the sound alone, as it probably couldn't see the Hummer Tanagers until it got to the tree.

Jangara, I

Jangara, I

I am becoming more convinced that the CNTr of the Plain Tanager is at least partly hostile. One sees flocks flying without... and it may be the commonest pattern when flocks take off simply because such flights are often triggered by supplanted attacks (although everything happens too fast for me to be sure of this.)
Jaguar, I.

January 23, 1958

Camp Colorado

...An apparent pair of golden-winged, feeding-in-groups Spotted Pheasants... lots of CN's, in ones, twos, or threes— but never my notes, or in real contact. They became slightly separated. Both continue CN's as before, but one of them (unfortunately, of course, the one I can't see behind the leaves) also utters about 4 or 5 long R's (quiet as described above). This appeared to be comparable to the US of the Shawnee's Intruders, it seemed as if it appeared to be comparable to one sex, presumably the male, and used as an attempt to "call in" the mate...

Then both birds flew off, uttering a series of CN's. This initialised a more note, uttered more rapidly, than any series of CN's uttered while the 2 birds were still feeding in the bushes, but fewer notes, uttered more slowly, than the "syllables" of a real R...

I am beginning to think that the R's don't have a "real" R. There was a famous fight between 2 males this morning, during which they fell out of the tree in which they had been feeding. When they first came to grips, one of both uttered a few notes like ordinary CN's, but louder and sharper (but not hoarse, like the HAC of no many species). This continued into a series of ordinary CN's as the 2 birds separated and flew apart...

Jaguar, I.

February 1, 1958

Lots and lots of snapping attacks in a flock of feeding Pheasants this morning, some led to causal clashes. The most interesting aspect...
One of the dogs' encounters was that they were quite silent throughout, as well as lacking ritualized postures and movement.

The only sounds I heard during any of their disputes were a few chews and grunts, during some vocal chases and (possibly) a few patent typing and relatively long and weak "stream", during one of the chases. This occurred as if it might be a distinctly different call, but some not absolute since which birds or birds gave it.

This sort of behavior would suggest that the aggression within a flock is not suppressed as much, but is controlled by the fact that the attacked bird usually retreats immediately. (Not the relative rarity of ritualized displays, or undoubtedly connected, in one or another way, with this.

Now two long continued fights, one, birds tumbling all over and falling down to ground. Both times the fight was accompanied by loud, prolonged chews. No sign of other ritualization.

I think perhaps that it would be safe to say that fighting has increased in the flock of Plains during the last 2-3 months. Appropriately since the beginning of the dry season, in fact. Why?

Jungara, I
February 3, 1958
Bano Colorado

Well! For years its ugly head - at last!!!

I located a pair of Plains when a copulation attempt was in full swing. The g was in a Solitary Posture (SP) and the g attempted to mount 2 vs 3 times. All these attempts were negative.
and apparently unsuccessful - the A slipping off almost immediately. The holocentus Portcri as I first saw it was coming in, more or less:

Definitehit (although I am not sure of the exact extent to which the breast was lowered), some fluffing of the lower feathers, but not too awfully much; wing lowered to some extent but not spread.

...tail held obliquely upward - and merely two times (a fraction of an inch - but quite definite and conspicuous) in a moderately fast motion; tail feathers possibly spread a little. During one of the eventually similar 80 between Cop Attempts, the tail was held open. It is possible that a sound was uttered then; but, if so, it must have been very soft, as I couldn't hear anything at all.

After several Cop attempts, the A flew away a few feet. He then advanced after her, first rolling down a branch toward her, and then flying over to join her on the new branch he had picked out. While she sidled at first, just before flying, she remained in the SP and began to do a little Wing quivering, very fast but very small in amplitude, unlike the wings continued to be drooped as before.

The whole incident was ended after a very brief period by little birds flying off and disappearing from my sight. There were also a couple of fidgets - of the usual type, birds tumbling about in the air - between what were possibly
other lands. No call before the fight, TNC's by one or both.

lands as they flew apart immediately after the fight.

Jangala, Feb. 2, 1958, II.

February 3, 1958
Banco Colorado

A lot of supplanting attacks a chancy (usually silent) in
small flock of Plums in the Guayaran this morning. Almost
all the aggressiveness seemed to be done by one particular bird,
in more or less one particular area - so that it looked almost
as if it were striking out a territory. Eventually disappeared, how-
ever, at least for the time being.

I saw 2 birds, apparently a pair, flying around with apparent
enmity in their bills, and with 3 other birds flying around
with them in what was obviously still a tightly organized flock.

It should be noted, in connection with the probable evolutionary
origin of St. Fermine, that Plums assume a sort of un-
ritualized "stretch" as an intention movement of flying up.

Often accompanied by flapping, usually more or less commen-

Jangala, I

(But no means always with breast lowered like this.
Sometimes the chin is lifted to the same angle while the bird stands
quite erect.)
March 3, 1958
Bueno Colorado

Watching a few Finches in trees, several pronounced G's before attack.

Also one bird stood several times in a completely unaligned posture, but with drooping & flapping wings. This looked rather like the wing-fluttering which precedes general shakes in such species as the slimy Honeycreeper, but it apparently provoked other birds in the flock (at least 3 one night after the other, to fly toward the fluttering bird. The flutteer reiterated each time, and so nothing developed. Was not involved in this??

Faugura I

March 22, 1958
Bueno Colorado

I have been looking around to see if any of these Fauguras do anything which might be the equivalent of the "song" of other species. The only thing I have seen was one case of a solitary (? perhaps one of the birds of a pair which hung around the clearing here) Golden-wax which gave repeated R's one day while perched on the tipmost twig of a bare tree.

But I have certainly seen plenty of cases in which one bird of a pair appeared to be quite alarmed when its mate flew away.

And I have not yet been able to distinguish any form of R en either the Plains or the Golden-waxs.
June 13, 1958
Thursday 3:00

- miscellaneous.

A pair of Superb Fanegars, *fantasia* (♂ & ♀?) in a small cage by themselves.

When presented with a mirror, one of the birds began to hop around the cage, very excitedly, withWF's, TF's, and CN's (sometimes single, sometimes in series of 2 or 3 or 4, but never any R), just like the local species of Tangara on BCI.

A single Feature Fanegar, *cyanoccephala*, also present in a small cage by itself.

Did WF's, TF's, and CN's, much the same as those of the Superbs (although apparently lower intensity) when I approached its cage.

Jangara, I

August 2, 1958
Bano, Colorado

I now have quite a lot of these birds in captivity. Three apparent adult Fanegis: lavender left, yellow right, and silver left. Three Golden-napes. Two definite birds of the year, just melting into adult plumage: lavender green neck and lavender neck. The other is either a juvenile which has just completed the molt into adult plumage or a myodelph adult from Brazil red left.

All these birds have been put into the leg aviary with
a Palm Tanager, to carry. I hope, a "mural flock" as in the wild. So far, however, the species have kept us well segregated. I have had all the birds since time, and kept them in small cages, each species by itself, until yesterday, but I have had the Plums considerably longer than the Golden-marks. This may or may not explain the differences in behavior of the 2 species in the average, but it is certainly true that in the avian, the Plums are tamer than the Golden-marks, going down to feed more readily when I am around, i.e. have an apparently weaker internal escape drive. The Plums also seem to be less aggressive than the Golden-marks. At least the Golden-marks can usually force the Plums to retreat by very slight supplanting attacks.

The only definitely lattice pattern shown by any of the caged birds so far was a single 6 by a Plum, without ritual vocal patterns or movements, when a Golden-marked tried to make a supplanting attack upon it.

I now have the calls of these 2 species down a little better, and I can confirm some of the things I noted previously.

The CN's of the Golden-marks are certainly just what I thought. Frequently single notes, frequently in accelerated series when the birds fly. Defining harder in tone than the CN-Toll of the Plums. A single adult (c7?) came to visit the captive birds today, and flew down to the top of the avairy (when he was hidden in the leaves of the vines growing there) and uttered a lot of single CN's which were even harsher than the usual ones. They may possibly have been a "different" (aggressive?) display?? All the other CN's of the Golden-marks
do look as if they were purely flight reaction or contact notes. No
link with overt hostilities so far.

The visiting wild birds flew up to the tree one by one every
afternoon, altering between four or six birds, and sat there for a
long time, alternating a few single flyways or flyways with R after R
after R. These R’s are definitely the “hard” type of the CN bird
almost exactly like the R’s of the Yellow-headed Grosbeak (or
the CN Hull’s of the Plains, of course). This bird didn’t seem to
be overwhelmed by my presence, so this incident may
confirm the theory that the R’s of this species are used to “call in
companions, (this bird may well have been the mate and or par-
cut of the capture bird).

I may have to revise my opinion of the Plains’ notes a
little. The capture birds have done little or no single CN’s!!!

They gave CN Hull’s instead – even apparently at the very lowest
activities – when they got close, give very short Hull’s.

Jangana, I

August 5, 1958

Bueno Colorado

One further indication that the CN Hull’s of the Plains’
are due to “frustrated flying drive” I have noticed that
the birds are particularly apt to give more and more high inten-
sity CN Hull’s when they are perched on a twig just above
the food dish – obviously torn by contradictory desires to go
down & feed and fear of my presence not too far away.
I now have another golden-male in the aviary.
An adult (♂♀?) in perfect brilliant plumage. Banded blue left.

So far as my observations go, wild golden-males
seem to be more likely to visit capture birds than wild
Plains. This would suggest that the apparently lower degree
of aggressiveness of the golden-males is due to their stronger
and least more overt similarity. The fact that wild Plains
visit less often may be due to the fact that individual wild
Plains are always "distracted", to some extent, by other Plains
outside the aviary.

There wasn't much in the way of reaction to the
new bird today. The other captive golden-males did follow
the newcomer around, and some of their following attempts
were so vigorous that they may have been inapplicable attacks.
But there was very little in the way of display, except for ordinary
single and accelerated rends of "Kweep".

The only new thing was a slightly different call
short burst of notes (possibly each burst itself should be con-
"Kweep kweep kweep kweep kweep". Each
"Kweep" sounded like an accelerated and somewhat hurried
burst of single "Kweep". Each "Kweep" differed from an "ummm" insofar
as the individual "vibrations" the "ummm" quality were
clear distinct than the "syllables" of the R. and the whole thing may also have been more nasal. These "Knee"'s occurred when one of the old birds (unusually red-banded indeed, I think) approached the newcomers. Apparently not accompanied by ritualized gestures or movements, and I was never sure exactly which bird was actually uttering the notes; but I think that they may have been courtship.

Tangara, Aug. 8, 1958, E.

August 10, 1958
Ceno Campana

Green Fauquier = gypsoa

I saw several of these birds in the woods about half way up the mountain. A small flock, including 2 adults and a young in general plumage (and possibly a couple of other adults).

Feeding in much the same way as the related Fauquiers on P.C. Quite restless, but not so much so as Kauai. The adults also seemed to relatively silent. The only sound I knew was made for certain was a couple of "quisit" CN's given by an adult of (or sub-adult?) - the plumage was dull but not like the juvenal) just before flying away when I disturbed them. I think I also heard some of their notes in the shrubs where the whole flock was feeding on fruit or insects on the top of a tall tree.

One of the juveniles did a lot of begging from a parent.

Sitting or standing in apparently mutualized posture, head rather hunched, body & tail more or less horizontal. Wings held out horizontally, a blow, quivered. Peculiarily silent.

Jangara, I

Watching more Greens around here. Can confirm what I saw before. Always in singles, pairs, or families of pairs & young. Relatively quite silent. CN in a "Trill." Often quite uttered above 7. Only two or three at a small section with definite intervals between successive notes. One bird (one of the adults of a family counting of 2 adults and 1 young) uttered a series of about 6-7 notes once when it flew away from the other members of its family. . . .

Middle notes perhaps shorter & higher than the others.

During my observation today I have seen no trace of any association between Greens and my other species — not even feline-throated Tamarins.

= feline-throated Tamarins = intersexuata

Quite a lot of these birds around also, but apparently only on the top third of the mountain (i.e. they are apparently not found as low down as Greens are, although the Greens go as high as they do.)

The feline-throat are no more pugnacious than the Greens, also going about in pairs or small family groups of 3 or 4. But they do seem to be rather more restless than the Greens.
and sometimes, at least, more content than moji. All I have heard them utter is single CN's, but there can be repeated at frequent intervals in long series. Very distinct, high sound. Harsh and buzzy, quite Cisde-like. Might be transliterated as "Isaahk" or "Isaanka."

I haven't seen any of the silver-throats join mixed flocks as integral or nuclear members. And they sometimes feed in flocks close proximity to mixed groups of warblers, flycatchers, etc.

Jangara, Aug.

I have seen several more cases of Greens uttering a series of notes when tattling fledgling. Just as described yesterday. Also watched a Greens, which I presumed were mates, (one of them was less brilliant than the other, with a distinctly duller rufous "cap", and I presumed this was the ♂). In a tree, somewhat distressed by my presence. Both uttered CN's, not very rapidly, without ritualized postures or movements. The notes of the ♂ were definitely louder & harder than those of the ♀, almost "Tick" like. Always single. The notes of the ♀ were thinner & weaker, perhaps sometimes more long-drawn. They uttered both single notes and doublets — frequently in alternation. For a long time she not uttering these single notes and doublets at quite regular, approximate four or five second, intervals. Later on, the ♀ flew away, and the ♀ made no attempt to call them back.
Waiting moredeliver threats today. Anadvent with fully-fledged young. Vocal CV of adult as usual. Also gave
shorter sharper single notes, apparently as A-CN's.

The apparently lowest intensity version of the ordinary
cV is a bit less, weak "Tnp", without any harsh or buzzy quality. Perhaps I should give this another name: "TCN"

The young bird begged for food, and was fed several times. This begging took the unusual panure form. Of plus FB notes
On was quite conventional — except that the wings were hardly extended at all. Just lifted a little out of the supporting feathers.
and the carpal joint, sometimes at least, lifted as much or more
than the primaries. FB call an irregular series of notes, up to 4 or
5 at a time, in a single series. Length of individual notes extremely
variable. "Waaahn, waaahn..." or "Jaaahn, taaahn..."

Rather hoarse. Less cica-like than the ordinary CV's of adults

Later on, in the afternoon, I got a chance to see more
FB by the same bird. I am now sure that the usual FB call
is come ya: And the primaries are
held out more than the carpi during G. But this is seldom
or, more probably, never mimicked.

August 23, 1958
Ceno-Camprea

Jangara, E.

August 30, 1958
Ceno-Camprea
Watching an apparently isolated Green (♂?) feeding
moving about in the tree-tops. I was stunned to discover that this
bird was giving WS after WS after WS. The actual sound of the
WS phrases was quite reminiscent of the Palm Tanager. Impos-
sible to describe adequately. Perhaps, more "whispery" than the WS
of the Palm — without being softer. Sometimes begun and or ended
with a few more distinct "Whit" or "Wheer" Notes. Also the
whole thing was perhaps slightly reminiscent of Lophornis songs.

These WS phrases were given from a variety of unlocalized-looking
perching and sitting postures, but none of them, and perhaps all
of them, were accompanied by definite Q. Beginning very slight at
the beginning of a phrase, and increasing toward the end. Wings
quit held out a little — even at its most extreme — not like SH of
Tiaris. Not drooped or spread. The bill was kept slightly open dur-
ing the whole phrase, without opening and closing in rhythm
with the notes — or only very little.

This bird was a sure, full adult.

Some of the family parties of Tiaris-Trota seem to have
joined up with one another. I have seen one flock which was appar-
cently composed of at least 2 families, and I have also caught a
group of 2, mixed young & adults, which was apparently a flock
of 2 families.

Faugara, I

September 1, 1958
Claro Caupano

Watching another apparently single or isolated adult Green

I

I was watching a flock of deliver-throats feeding in the very top of a very high tree, when I heard a definite "us - like that of the green described above on p. 21, but even more "whispy" in quality - coming from that direction. I think this may well have been given by a deliver-throat, but I never actually saw the performer.

I watched a young bird - very young, probably just out of the nest - FB from its parent. Just as before, but even more extreme. Extreme H posture, wings very droop
Jungara, Sep. 1, 1958

I am keeping 5 of the birds I caught yesterday, all in a small cage. One bird is in very bright plumage, presumably adult (?). Two others are in moderately bright plumage, presumably adult 9's or young males (?). The other two are definitely recently fledged, in complete immature plumage.

There has been quite a lot of disputing going on in the cage, supplementing attacks and quite a lot of pecking disputes. The pecking disputes are usually accompanied by harsh CN's, HCN's, and/or G.

The HCN's are quite like those of other tanagers in sound. I have definitely heard a lot of HAC Notes uttered by one or both of the complete immature birds. Probably also by the adults. But the bright 9's usually just cutters a particularly harsh version of the CN. The CN of this species is almost always harsher than that of the adults of other...
Jangara species anyhow — with almost an R undertone — so that it is not difficult indeed to draw the line between harsh CN's and HCN's

The bill is opened very wide during HCN's (and harsh CN's). Possibly emphasizing pinkish inside mouth ?

Anyway, it is obvious that these CN patterns are closely related to G. A bird often keeps its bill wide open for a few seconds after a harsh CN or HCN. Apparently the hostile motivation (both attack or escape ? or possibly just attack ?) declines. The G certainly does seem to be a lower interest pattern, on the average, than the HCN and related notes. If a bird only shows one hostile pattern during a dispute, it is apparently always or almost always G.

Aside from this G I have seen nothing in the way of ritualized gestures or movements during these hostile encounters.

Jangara, I

September 17, 1958

Ceno Punta

There are quite a few feline threats around Ceno Punta, and even lower down — on the way to the Blanar above El Hato. The only Jangara around in most of these areas (though one seen one pair of another species, gypaetus, in the woods just above the Blanar), apparently the Duracell reason is quite ours. Almost all the curvets are single or in pairs. Can confirm that this species is essentially non-gregarious.
Jauangara, Sept. 19, 1958

I have only once or twice seen it associated with the mixed flocks of Chest-tanagers, warblers, finches, etc. Usually ignores the flocks while it feeds by itself, even in the same general area as the flocks.

Jauangara, I.  October 31, 1958
Brown 300

Among the many Callistes they have here now is a single (or?) Yellow-bearded Tanager = saxicola cephalo = 🌿. In a small cage with a lot of other Callistes and other birds seems to move about like all the other tanagers of the same genus. Some WF's and TF's. The only CN's I have heard are weak ordinary "Juju" — and they seem to be relatively rare (although this is difficult to tell, as it is difficult to hear sounds from this cage.)

I have noticed that it assumes quite a definite stretch posture as an intro. move. of flying up. These ornithologists say

Possibly more extreme at times.
Once, when a golden... walk came too close, the Yellow-head did a definite_GU from a quite unmutilized posture.

Actually I don't suppose that the pre-flying stretch is any more exaggerated than that of most other tanagers. Quite possibly

less than that of many species.
Will well! Long. The Yellow-head went up to a perch near the top of its cage, and sat there for a portion of an hour. Rather flushed!

Small-headed, large-looked, looking. Head feathers held so that the fore-head was smooth, the crown came to a peak on top. For three abs.

olutely motionless for quite some time, giving a variety of vocalizations. Quite a lot of single "Fut" notes — quite loud. These were sometimes repeated in multitone series. The longer the series the softer the individual notes became. The commonest multitone series consisted of 4 notes — — — I thought this was the "song" at first, but then other more complex vocalizations developed. Some series of 6-7-8-9-10 notes just like the soft "Fut" notes of the usual 4 note series. And some series of many more notes, these were much softer than the notes of the 4 note series. So soft that I actually couldn't hear them. I think that these series of notes were composed of very rapidly repeated a soft "Fut" notes, without much variation between the individual notes. But I can't be sure of this (it is possible that the bird uttered a warbling phrase.) In any case, it is obvious that this is the exact equivalent of the "silent songs" of other species.

Very nice from a comparative point of view. I wonder if it could be significant that this species is largely green—like the Green Squirrel. It is possible that the green species are the most primitive of the Callimices.
The bird sat like this for quite a long time. Repeating
single CN's, series of CN's, and "silent song" in a quite variable and
apparently random manner.

It is interesting that none of the CN's during this performance, nor
even the loud single CN's, were accompanied by any notes of WF or TF.

They certainly would have been in other circumstances.

The bird opened & closed its bill with all the individual notes,
single or repeated as (apparently) during the "silent song", throughout
this whole vocal performance. And the tail also quivered or flicked
with each note.

Nov. 1, 1958

There are a few kinds of some other species of Tanager
here: Golden Callites, amitius (occidentales), Scarlet-faced Callite
janyzudah, and Metallic Green Callite, calcarolides. One
Scarlet-face and one Metallic Green, two Goldens, but in different
ages. I have been watching them off and on, but they haven't done
anything very interesting.

All 3 species seem to have WF's and TF's of the usual Tanager
type. All 3 are quite restless & vocal. All 3 have single "Tit" CN's
of the usual type. (I have also seen the Scarlet-face utter double-
note CN's, repeatedly, at fairly short intervals.)

One of the Goldens has also done a lot of rather prolong-
ed and apparently silent & from quite unritualized sitting
parties, when other birds have come too near to where it was
sitting.

**November 7, 1958**

**Jauaca, I**

Brown Zoo

Conway tells me that Labradorides (another green species)
has a song like that of the Black-winged Palm Sauerage.
I myself have seen the white Labradorides here do a pro-
longed and apparently silent G toward the Underornis in the
same cage. (The Underornis changes its Metallic Green Cottle
quite frequently in an apparently hostile manner.)

**December 9, 1958**

**Jauaca, I**

**Reno, Colorado**

The large cage in which I keep my 4 captive Plaus and 4 capt.
vie Golden-marks was visited by quite a large mixed flock for quite
a while this morning, (including at least 1 Golden-mark, 2 Plaus, 2
Blues, 1 Palm, 1 fatty ant-slinkie, and 1 pair of Varible food-eaters.)
Lots of reactions

The Golden-marks were by far the most violent and energetie
in their actions and reactions. The Visitors flew down to cling to the
side or top of the cage very frequently, and the 4 captive birds overall,
flow straight toward the visitor, and then all 5 would usually fly
madly back and forth, up and down, with only very brief pauses for minute
on end, (most of this activity due to the fact that the visitor wou-
ld try flying to different parts of the cage, sitters escaping or looking for
some point of entry, while all the captures would try to follow.)

All five of the Golden-Marks uttered lots of CN's during
two encounters. Struck again by how-much harshler their CN's are
than those of the Plavis. Better single or, much more frequently, long and
rapidly accelerated series of harsher notes. (The actual harshness of the
CN's of this species is somewhat variable — although they are all compa-

ratively very harsh — and I am fairly sure that the harshest notes are the
most strongly hostile, probably the most strongly aggressive — see below.
Both the male CN's and the sexes of CN's were given both by flying or
perched birds.

I am quite certain that these incidents were overwhelming hi-
tile rather than sexual (that they were not due to copulatory tendencies
is indicated, I think, by the general behavior of the Golden-Marks in
the wild). One of the captures actually had a little pecking bout with
the visitor through the mesh of the cage. And the fact that all 4
captures seemed to be equally excited or upset by the visitor's presence
would seem to show that this was not gaming behavior (I know
that I have at least 1 4 and 1 0 7 in the group.)

In the intervals of flying about, all 5 of the Golden-Marks did
lots of TF's and WF's of the usual kind. They did this with
Jangara, Dec. 7, 1958. III.

I noticed that the R of the Golden mark was apparently never given in flight.

They were quite silent as well as when uttering single CN’s and series of CN’s. I also noticed that they tended to hold their wings so that the blue shoulder tufts were particularly conspicuous even when they were not doing WF.

All 5 birds frequently assumed a stretch pre-flight posture, quite like that of related species. Quite variable, depending upon the portion of the body to which it wants to refer. I am not yet sure that this is not really 2 sets.

The writer and at least 2 lots of R. Quite like the R described before, and usually given from the posture shown on Dec. 13, 1957, p. 40. (although sometimes a bird giving the R with head a bill a little more nearly horizontal, and the lower body feathers a little more flattened). The wings were not always (not usually?) waved over the nupp. There was no WF-nug or TF-nug during R’s. These R’s sounded just like particularly rapid series of the familiar sort of CN’s, and they were sometimes preceded by an increasing rapid series of CN’s, conforme.

But there was usually or always a definite morphological gap between what I have been calling “series of CN’s” and R’s, i.e. the onset of the R was marked by a sudden increased acceleration, and even greater acceleration than during the fastest series of CN’s.

I think that these Golden marks today may also have uttered “Kreeck”. R’s like these described on Aug. 8, p. 16, but I am not quite
more about this. In any case, the "Knee" R's are almost certainly nothing more than less aggressive or, perhaps more probably, lower intensity versions of the harsher, loud R.

The whole vocal repertoire of the Golden-mack, so far as I have heard, might be summarized as 'home' and 'Knee' HA.

less harsh CN's \(\Rightarrow\) less harsher CN's

\[
\uparrow \quad \downarrow \quad \uparrow
\]

less CN's \(\Rightarrow\) harsher CN's \(\Rightarrow\) "Knee" R

I think that all the harsh CN - R rounds are largely or completely hostile, tending toward aggressiveness.

In general, the whole CN - R complex of the Golden-mack seems to have become or remained much more hostile than the related complex of the Plains.

It was interesting to notice that the constant calling of the Golden-mack during their encounters (and not the calling of the Plains) which seemed to be the main stimulus attracting & holding the mixed-species flock to gether. In other words, the Golden-mack might be an even more efficient "mucus" than the Plains if they behaved in the right way, if the very behaviour that attracted other species did not force them to separate from one another.

The behavior of the Plain Tanners when either one or both of the winies came down to hunt the 4 captures was interesting & both similar and dissimilar to that of the Golden-mack in the same circumstance.

As far as general movements were concerned, the Plains flew up
and down, back and forth, quite like the Golden-maned. Except that the whole thing looked closer, and more intense. The visitors flew down to the cage less frequently, and all a flock around mutter less frequently and energetically. The Plaxis also went into the extreme in flight, stretch less frequently.

Unlike the captive Golden-maned, the captive Plaxis seemed to become less, not more, vocal than usual while the visitors were present. And all their calls were ordinary, single CN's, series of CN's, and CN-fall's (actually there are not few real series of CN's which are not CN-fall's). All these could be given by either of both, including and flying birds. (I might add, that this species definitely does utter single CN's and little doublets, quite frequently.

The whole vocal repertoire of the Plaxis (again except HA)
might be illustrated by the following diagram:

\[
\text{single CN's} \Rightarrow \text{series of CN's} \Rightarrow \text{CN-fall's}
\]

All this seems to be strictly analogous to the less harsh single CN-
less harsh series of CN's complex of the Golden-maned. The Plaxis does
not seem to have anything strictly analogous with the R of the
Golden-maned, although the CN-fall may well be strictly homologous

In general, the whole behavior of these Plaxis today would
seem to confirm the hypothesis that their hostility behavior is compa-
natively (and possibly actually) weaker than that of the Golden-maned.

It is not surprising, therefore, that they don't seem to have the sam
e hostility calls. I don't think that any of their CN-CN-fall patterns
are really hostility at all, although they may be the indirect result
of the activation of hollowness in some situations.) They all seem to be eventually locomotor.

I am now quite certain as result of these incidents today that neither the Plani nor the Golden-mock has any genuine or fundamentally basic ritual or social or movement except G.

Jaguar, I

January 19, 1957
Baino, Colorado

Plani-colored Jaguars seem to be rather less common than before around the clearing, now that the breeding season has begun, and I think that they are rather less gregarious now.

I have been watching visitors coming to visit the captive birds in the outside cage, and I rather think that Golden-mocks are quite likely to make visits as are Planis. The situation in other words, may be just the same as in the honey beeers. The Golden-mocks may have quite as strong positive social tendencies as the Planis — only its hostility is stronger.

There was quite a long ditching bout this morning between one of the captive Golden-mocks and one of the visitors. The surprising thing was that while the actual fight was going on, the two birds were quite silent!

Jaguar, I

March 3, 1957
Ceno-Paita

There are a few felier threats around here. Muchas Call...
Tangara, Mar. 3, 1959, I.

Again mostly by themselves. (Actually, since the Bush-tanager
える mixed flock association which was so prominent last year seems
to have declined now—there isn’t too much the Silver-throats cou-
ld associate with.) But I have twice seen a Silver-throat (the sam-
e bird, we recall) accost a branch where a Common Bush-
tanager was feeding. Probably just looking for the same food, but
it is the nearest thing to a positive inter-specific social reaction I
have seen the species perform.

When we fruit arrived, we caught a brief glimpse of a pair
of Speckled Tanager (chrysophlegma = ———). They flew away at
most immediately, but I did have time to notice that they uttered
a trill “Whit” or “Whit whit” CN in flight, rather than the 4
33 y W. of the Silver-throats

Tangara, I.  

July 11, 1959  

Cecio Campana

Watching Bay-breasted a Silver-throated Tanagers again.
One Bay-breasted (probably I) stayed long (all the time
I knew) that I was watching it. Nearly just sitting, sometimes hopping
around a little bit to feed. And a lot of singing. Finally, when sitting, som-
etimes more or less when feeding. The song of this bird was quiet about as
I remember it. Like a very
of the Chest Tanagers
just slightly reminiscent
Mary’s song phrases seemed to be
a trill + a trill & trill
introduced by 2 with

song, also
introduced by 2 with

Cottingia
southeast 2 miles south of the N.W. of the Palm & Blue Heron, W.ter. Evident the latter also occurred from time to time with music of the rest of the song phrase. Much of this singing was done from quite a ritualized, sitting, standing, or hopping posture; but once, for almost a period of 5 minutes, the bird sang repeatedly from the more ritualized posture drawn on the preceding page. I am not sure if this posture is really ritualized or not. It might conceivably be something more than a sitting posture.

The bird had also been peering from time to time before singing so the posterior singing also have been an indication of "comportment activities" motivation.

During the song, this bird looked around from side to side, and/or peaked up and down, looking "looking" for something — presumably a mate.

One thing I did notice about this bird, and all the other Boy-heads I have seen, was that it sang when well inside a tree (probably about 10 ft. up), not on an exposed perch at the top. In other words, the bird was not advertising itself as conspicuously as singing birds of many other species. This might conceivably be the least indication of the partial concealment of song. Both the Boy-heads and Selves-thratch I saw today were behaving much as they did when I saw them here before last year; insofar as they were not really gregarious, but I did see birds of both species in association with the "feeding association" (see today's General notes) — something which I had not seen before.

One pair of Boy-heads in a "feeding association" was accompanied by two fully grown young. I didn't see any Selves-thratch today which appeared to be juveniles.

The two young Boy-heads with their parents did a lot of beg...
Jauana, July 11, 1959

In ordinary perching posture, with wings held out, drooped, & chittering vigorously. No trace of fli or tail movements. Accompanied by the usual type of nasal chuzzy, rattling plaintive notes: "Zee zee zee zee zee zee zee zee ch". Sometimes the series much more prolonged.

Watching the birds in the feeding association, I also saw a very rigorous fight between two slicker-threats. Both birds adult. Actually both tumbling all the way down to the ground. Accompanied by harsh buzzzy notes of "waaah, waaah, waaah, waaah." Obviously a form of HAC quite like the FB Notes of the younger Bred heads in actual sound, but harsher (rather than plaintive) in quality.

The resemblance between the FB Notes & HAC Notes of these species is quite remarkable. Probably greater than in all but most of the other species I have studied. This might be taken as an indication that the FBNotes contain a relatively strong flebitte component.

Jauana, I.

July 11, 1959

Cero Tanita

I have seen a couple more aerial fights, or at least bursts of HAC calling, when one slicker-threat approaches another. This certainly seems to be one of the most aggressive species I have studied. I was even reminded of the aggressiveness of the Green Honey creepers this morning while I watched the slicker-threats.

There seems to be no doubt that the slicker-threats tend to feed at lower levels of vegetation than the Bred-heads, on the average. There is some overlap between the 2 species, but the slicker-threat feeds more often in moderately low-vegetation, and sometimes even much low-
en than I have ever seen a Big-beard. (This difference between the two
species seemed to be the name at Cenzo-Punta as here.)

Jangara, I. September 21, 1939
London Zoo

Waiting a couple of superb Jangarins in a small cage here. They are presumably the same pair I watched briefly last year (see p. 13). Presumably the species jactosa (= 11111)

One bird was much better and brighter plumage than the other. I shall call this bird A. I am sure that it is a 0. The duller bird may also be a 0; I shall call it B.

The most interesting aspect of the behavior of these birds today was the fact that they sang. A began to sing quite vigorously around 5:00 p.m. and continued off and on for at least an hour (when I left).

His song was quite loud and most of the notes in it were quite metallic or "wing" sounding. Only a few were pleasant or sweet.

His song was extremely variable in form. They seemed to be composed of notes which were like ordinary CN's, series of notes like a moderately accelerated series of CN's; trill-like which sounded as if they were composed of an even more accelerated series of CN's; and whole, prolonged, eerie, whining notes. A fairly typical prolonged song phrase might be represented as follows:

\[
\begin{align*}
\text{de de de} & \quad \text{de de de de de de} & \quad \text{MMMMMMMMMMMMMMMM} \\
& \quad \text{de de de de de de} & \quad \text{Bottles} \\
& \quad \text{de de de de de de} & \quad \text{Whines} \\
& \quad \text{da da da} & \quad \text{Whines} \\
\end{align*}
\]
The initial part of this song, the "de de de da dah" was fairly constant. Many song phrases were apparently abbreviated, and consisted of three 5 note phrases. The remainder of the song, if present, was the variable part. These song phrases consisted of the initial 5 notes followed immediately by the "M.Score" and nothing more at all. When other elements had also ended, it was obvious that the sequence of interior Whirry, moderately accelerated notes, etc., was eventually "stuttered" in almost or end, one of these components could be uttered at any time in any part of the sequence.

I was also certain that the Whirry, the "Whirry" was also uttered itself alone, after one or a few of the CN's or CV-Care notes. The form of this song needs to the most significant to me. It is almost exactly intermediate between the song of Goryo and the R pattern of the Golden-marked Taucar. The variability of the components, after the initial notes, would suggest that the prolonged song phrase as a whole (which may well have been like that of Goryo at the time) is in pieces of "break-up" or "dissolution." And the frequency of R's in the songs would suggest that the R may be taken the place of an original variable.

These songs were uttered from apparently quite ritualistic singing to noise. The head feathers were职务, just slightly tucked during some notes, but this was never very distinct and quite freely absent during the majority of song phrases. During some songs, A made one or two very slight WF movements.

B also began to sing this afternoon, much later than A. B's song phrases were always much weaker and shorter than the typical phrases uttered by A. Parallel uttered in response to A's phrases. The two made WF and always uttered their phrases antiphonally.

I think that most of B's phrases were essentially similar in de-

The initial 8 note parts of A's song

B never showed any trace of special ritualized movements or post-

wrecluring singing.

The CN's uttered by both birds today were essentially the same.

---

= harmonics (sweet tone) = slurring quality.
Jungara, Sep 21, 1959

as they described last year. The only new aspect I noted today was that A (and B?) occasionally uttered some bilingulic CN's in a kind of the usual monosyllabic type: "Wheel-wheel, wheel-wheel,..."

When A was sitting relatively quietly not swinging, with head and neck feathers uncocked, he would give one interesting reaction. Whenever I sat on the floor and he looked at me inquisitively or if held a mirror up close to his cage. He would suddenly fluff out all the feathers of his head & neck (brilliant turquoise). They of the E. Estrilines apparently do the same thing in similar circumstances. He has been calling it the "Embarrassment Reaction" I shall call it E. Once, today, A did E and then immediately did a general shake of the whole body and tail. This might indicate that the E was merely an intention movement of a general shake.

I suggested that, according to the label on their cage, both A and B have been in the zoo for at least 3 years.

Jungara, I

Waiting the same features as before ...

The bilingulic CN's described immediately above, i.e. "Wheel-wheel, wheel-wheel," may conceivably have been related to the "snore." They are relatively rapid, less abrupt than the usual "Jit." CN of Jungara says that E. Estrilines does also have abrupt "Jit." CN's of other species. When sitting on a perch, making a lot of fluffing movements (indicating a desire to fly), both the birds here were utter snirt, chublet, or triplet "Jit" CN's. (They don't - at least usually - give CN's while actually flying - but this may well be due to the fact that they have almost the same to fly in their tongue.)
In the course of watching mixed flocks I have repeatedly noticed one Plain "begging" from another. Probably the begging bird is young (still plumaged). Its begging consists of 8 or so of the wings—not the tail—without any trace of 4 or other ritualized posture (its head is usually low and more or less level with the back, but even this is variable), and a "begging call" (BC). The BC consists of repeated "Zheee, zheee, zheee,..." notes. Quite reminiscent of some calls of the Panamaquit, but definitely slower in tempo. As far as I can tell, this 8+BC never or almost never provokes any response from any other bird (I saw just one case when the bird giving 8+BC was clearly approached by another bird—it's parent?). The 8+BC bird may have been fed during this encounter, and I didn't see the performance well enough to be sure.) The lack of response doesn't seem to discourage the 8+BC bird, however. It is constantly following and trying to approach another bird(s) (probably, but not absolutely, always the same other bird), doing 8+BC in all the intervals between flights.

Jungara, I

November 14, 1959
Bueno, Colorado

= loveina = Rufous-winged Jungara

Males at least one Rufous-winged Jungara here. Probably no more than one, always solitary. (At least I have seen a single Rufous-winged Jungara 8 times, and it was always solitary—not associated with other birds of the same or other species.

Quite active and utterers like other Jungara species.
Quite noisy, uttering a lot of CN's, but these notes are quite unlike the notes of any other Fauzara species I have ever heard.
When utttering in tree, it utterd single CN's. Nasal call was pulsing cap-lee ci round. Might be transcribed by something like "Waanah."

When flying away from a tree, it usually uttered a 3-note "FCN" at least 2 of the notes in each FCN's were more of the cap-lee. The 2 FCN's I heard but might be transcribed as "Jint Waanah Waanah" and "Wreakah Wreakah Wreakah."

Gangara I
March 20, 1960
Ceba Punta

We saw a pair of speckled Fauzara today, feeding in a mixed flock. (see today's notes on fucciónals). Quite silent, until they flew away, when they loudly uttered 20 3 CN's. I think that I would transcribe these as "Jint tunt..." rather than "Wuit..."

Gangara I
March 23, 1960
Ceba Punta

We witnessed 2013 speckled Fauzara this morning, in the same place as yesterday. At first they were feeding in loose association with some fúcuer, scattered Fauzara (and probably some other species), but later on they flew off and for themselves for a long time. For a while, a pair of Blue Fauzara were also feeding in the same trees as the speckleds, but this association was presumably purely coincidental.)
These birds uttered lots of CN’s during feeding, both when perched and when flying from tree to tree. Eventually, single, but sometimes repeated in series of up to 4 or 5.

They also uttered many calls which sounded like accelerated series of many CN’s. Sound almost completely identical with the CN Bell’s of the Plain-colored Tanagers. We never actually managed to see a bird while it was uttering a CN Bell, but we are fairly certain that the CN Bell’s are only uttered when a bird is perched, not in flight. In this respect, the CN Bell of this species is very comparable to the R of the Golden-naped.

It may be significant that these Speckled Tanagers were in a group of 3 during the period in which they uttered their CN Bell’s and R’s (we do not know if all 3 were Speckleds – but at least 2 were). Later on, one bird repeated from the others, and after this we heard no more CN Bell’s or R’s! This might be evidence that the CN Bell’s or R’s are eventually limiting.

We also saw a pair of Speckled Tanagers this evening (in the usual place, probably the same pair as this morning) feeding fruit by themselves and then in a mixed flock. Uttered lots of CN’s, Tijuca or in series, but no trace of CN Bell or R.

It is fairly obvious now that the Speckled Tanagers here are definitely less gregarious than the Silver-throats (see below). They are often found in mixed flocks, but they also go off by themselves a great deal. (When we have seen them, they have been feeding on the same fruit that the Silver-throats feed on, irrespective of whether they are in a flock with Silver-throats at the time or not.)

The gregariousness of the Silver-throats here has greatly surprised us. We have not yet seen them when they were not associated with
some birds of other species!!! (Brown-capped Chick-taungers, Wilson's Warblers, and a great variety of other tanagers, warblers, thrushes, and flycatchers). When Brown-caps are absent (as is sometimes the case along the edge of the clauso), the Silver-throats seem to be the most prominent and most conspicuous members of the mixed flocks. They are also about as active as any other member of the mixed flocks, so they seem to be “nuclear” to some extent at least.

It is difficult to determine exactly how many Silver-throats there are in mixed flocks. At least 2, presumably a pair, in all or most cases. Probably 3 or (even more probably?) 4 in the flocks we have been studying the last 2 days along the edge of the clauso. At least one bird in one flock I saw today was juvenal. So the Silver-throats in these flocks may all be single family parties. Possibly always the same family in the flocks along the edge of the clauso (although I rather doubt it).

I almost forgot — Once this afternoon we thought we saw one speckled feed a berry to the other, not accompanied by an obvious call or display (although the receiving bird tilted its head & held upward, as what could have been an int. mov. of an ft. posture, immediately after it appeared to have been fed).

Jangara, May 23, 1949

Saw what appeared to be another pair of Fred-georgi among the Grass-colored Tanagers this afternoon. One bird, in the posture shown on the next page, facing another. The former uttering loud, heavy “Tseeseet” Notes over and over constantly. Sometimes, but by no means always or steadily, these FB Notes were accompanied by C. (This would indicate that the FB Notes alone are less
I have been watching wild Plum-colored Junagars quite a lot during the last two days. They seem to be nesting in the nest of the bluebird. One bird is sitting on eggs right outside my window.

I have now come to the conclusion that the CN call of this species is not just (or not always) a higher, internment, version of the CN. I think that all or most CN calls may contain a belted component. Most common are utterances by birds flying in flocks. Not always uttered when males fly together. Males may utter single “Tit” instead.

I watched one pair flying about in the trees together. Usually, they made short flights from branch to branch. Very rapid. During this performance one or both birds uttered lots of single notes. There may have been “Tit” (in which case they were probably ordinary CN’s), or more probably, remnants of Loud “Treet”. If there were “Treet”, they may have been imitating owls with the SN’s of Palm and Blue Junagars.

Once the mate of the incubating bird came down to a nearby nest to the nest and uttered a lot of single notes which seemed to be intermediate between “Tit”’s and “Treet”’s.
March 28, 1961
Buuo-Colorado

Waved some Plain-colored Javangers very briefly this morning just after dawn.

When I first started watching this morning, there was no bird in the nest just outside my house. Then one bird landed a few feet from the nest. Almost instantaneously, the owner (♀) of the nest landed and uttered quite a lot of single "Jeeze" notes, quite different from ordinary "Jeez".

At the same time I noticed another Plains color on a nearby tree. These latter two flew down past the bird which had been uttering "Jeez". The bird which had been uttering "Jeeze" immediately flew after the other two, and uttered a "CN" call as it did so.

I am sure these "Jeeze" must have been SN's like those of the Palm and Blue Javangers. This single bird was presumably trying to call in the other two birds.

(This single bird did not utter "Jeeze," as a result of its thwarted incubation efforts because my presence prevented the bird from going to its nest. A few seconds later, the bird returned and went to its nest without any hesitation.)

Later on, I watched an aerial chase, involving two birds (probably the incubating ♀ and her mate). Fast and twisting, I think one or both of the birds uttered "Jeeze" or "Jeece" notes during this chase.

Then the same 2 birds landed close together near bushes near the nest. One of them may have uttered something like "Dub dub dub dub". A musical tune of song??
The Plain-colored Nest might outside my nest was destroyed about 4 days ago, apparently the day the young hatched. The owners of this nest left the area immediately. Yesterday I noticed a pair beginning to build a nest in front of the Old Lab. This may be the same pair which had the nest by my house. In any case, I shall call the pair building the nest in front of the Old Lab "pair A."

(The reason I think pair A is the pair which had the nest by my house is that the A birds are sometimes visited by a third bird — see below — and the B of the pair which had the nest by my house used to associate with a third bird while the A incubated. This third bird is presumably a young bird of a previous brood.)

One feature of the behavior of this species (and other Tangara species) has just gradually dawned upon me during the last few days. A pair of these species stick much closer together, on the average, than an unpaired bird of Tangara.

I first noticed the A birds yesterday when the pair landed on an electric cable in front of the Old Lab. One landed slightly before the other. The first one to land uttered "VILL!" as soon as it landed. These unchanging ("tailed off"?) notes soften "Zee zee zee zee zee" notes when the other bird landed. At the same time that the first bird began to utter "Zee zee zee..." notes, it ruffled down the cable away from the second bird.

Just at this point, I noticed that a third Plain-colored had joined the group!

I do not know what their "Zee zee zee..." notes were.
They may have been SN, or BC, or "truce" (see below). If they were BC, the incident would suggest that BC may be appeasement immediately after the incident, one of the Plain-colored Tangaras landed right beside another. The wavering bird immediately went into a distinctive posture, with tail raised (I shall call this component "TV") and perhaps a slight inclination of its wings slightly drooped, but not spread, and certainly not Q'd. At the same time the bird within TV - its Pusture uttered a CN Fill.

Another thing I noticed yesterday was that birds of this species utter CN Fills quite frequently when perched as well as when flying. And not all the CN Fills are uttered while perched are followed immediately by flight.

Yesterday afternoon, a male tried to get two nesting Tangara de Torres (see today's notes on Phaethoecus). The parent Tangaras became agitated and vocal, and attracted a lot of birds of many other species. One of the low intensity melodic reactions. A couple of Plain-colored were attracted along with the others. After all they uttered were a very few CN Fills.

This morning I watched the A birds intensively for quite a long time. One bird, presumably the old most of the building, but always accompanied by the other bird, presumably the H (I shall call these "the"
"and "the T" from now on, without qualifications.) I have too
brought m.m. when he accompanied the q. Each time he gave it to
her and let her work it into the rest.

At least one of the A birds (and almost certainly both) show
ed a definite tendency to utter "Zeee Zeee." Notes as the birds came in
to land in the small tree in which the bush was located. Also when hop
ping and flying about within the same small tree. Probably most of
the "Zee "s were uttered in flight, but I am almost certain that
some of them were uttered by perched birds which did not fly immedi
ately afterwards.

These "Zee " notes were obviously the same as the ones I heard
on Mar. 20, 1961, (see p. 44). Have a definite but slight accen
tuated undertone. They could be something like SV's with an added undert
one, but I think that they are really muffled and probably somewhat
accelerated "variants" of the CN Till patterns.

Both the A birds tended to utter typical CN Till's (or even
much more loud and hard CN Till's — see below) as they flew away
from the meeting tree, instead of uttering "Zee " Notes. They also some
times uttered typical CN Till's as they came into land, but CN Till's
were much less common than "Zee " Notes in such circumstances.

Once one of the birds uttered "Zee " Notes while perched, and
then continued (without interruption) with CN Till's as it flew off.

In every case while one or both birds of the A pair would fly
away from the meeting tree quietly. They did this when they did
not appear to be in more alarmed than usual, or not alarmed at
all.

This behavior would seem to confirm the hypothesis that the
CN Till's of this species are at least partly hostile — not just purely
flight patterns. The "Zreee" Notes might be nothing more than low mewings, but they are often heard, however, that they are also accompanied by a pairing component. I have never heard them uttered except by mated birds close beside their mates. And they are very common when mated birds are close beside their mates.

None of the "Zreee" Notes seem to be accompanied by any special ritualized gestures or movements in most circumstances (but see also below).

Both the A birds also uttered quite a lot of ordinary mewing as a variety of everyday communications at various times this morning. Either mewing and/or in short and relatively slow verses. Some CN's were used as "introductions" to "Zreee" patterns (see below) but such CN's are apparently nothing like mewing CN's apart from "Zreee"'s and like CN's are associated with "Zreee"'s and like CN's are associated with ordinary CN's.

Several times, one of the A birds (usually always the 3rd or 2nd) mewed an ordinary CN, followed by a slow "Zreee", the vibrations of which seemed to become slower toward the end. The mewed performance might be represented as follows:

```
      _ _ _ _ _ _ _ _
   "Zreee", dub-dub-dub"
```

This is presumably very closely related to the "song" I heard on March 20, 1961 (see p. 44). At one time this morning a third bird joined the A pair in the meeting tree. All three birds began to fly about very rapidly and excitedly uttering lots of loud and hard "CN's", and "CN's". I think that both the CN's and CN Hill's at this time were definitely louder and faster than ordinary CN's and CN Hill's in other circumstances. Perhaps they were
A more strongly hostile and/or more aggressive

Then, suddenly, "social" feeding began. One of the birds
was fed twice by another (or the other), or two birds were fed
once. I couldn't tell which bird(s) were fed or which did the feeding.

The bird(s) being fed assumed ft + TV postures, with wings slightly
drooped but not spread or Q'd, just before being fed. Then ft +
TV postures were quite extreme. Comm. ey:

The bird(s) doing the feed-
ing did not assume any spe-
cial ritualized posture or perform
any special ritualized movements.

Both the feeder(s) and the fed bir-

(1.5) were either silent during this "social" feeding and/or uttered
"Zeees." Notes just before and/or just after being fed.

The fed bird(s) remained with TV for some seconds after being
fed, but it or they went out of the ft immediately. During most of the
period the fed bird(s) remained in TV without ft. It or they were cer-
tainly quite silent. Wings remained drooped as long as TV continued.

A few minutes later I saw another case of "social" feeding,
this time the A birds were alone; the third bird having disappeared.
Assumably the A feeding the B. The 2 birds cuddled together, uttering
"Wills." Then one fed the other immediately. No display of any sort
just before, during, or just after this "social" feeding.

The absence of BC's may be typical of "social" feeding in pair
mated or sexual situations.

I did not hear any SN's uttered by the A birds today.
I think that the shufplay responses of the Plain-colored Fauqans might be summarized as follows.

<table>
<thead>
<tr>
<th>Rating</th>
<th>Paving</th>
<th>Slightly Hostile</th>
<th>Strongly Hostile</th>
</tr>
</thead>
<tbody>
<tr>
<td>SN</td>
<td>Ordinary CN's</td>
<td><em>Ordinary CN-Till's</em></td>
<td>Fond a hard CN's</td>
</tr>
<tr>
<td>&quot;Freece &quot;?</td>
<td>&quot;Social&quot; Feeling</td>
<td></td>
<td>Fond a hard CN-Till's</td>
</tr>
<tr>
<td>&quot;It and/or TV&quot;</td>
<td></td>
<td></td>
<td>HAC</td>
</tr>
</tbody>
</table>

Infantile

| OC               | S                |

* I am not sure if there are really 2 distinct types of CN-Till's (i.e. ordinary CN-Till's and unusually loud + hard CN-Till's.)
Gapone, P.

March 25, 1961
Bozio, Colorado

Watching the A pair of Plais-colored Gaponeers again today for a couple of hours after dawn.

Today, I noticed that there were 2 other birds not other less attached to the A pair after with the A's when the A's were feeding away from the nest. At such times, the A's did not seem to object to the presence of the other birds. Right after dawn, when the A's first started to come to the nest, the other 2 birds frequently tried to follow them. The A's did seem to object to this violation. The O A always drove the other 2 birds away by a series of supplanting attacks. The O A uttered a few hard CN's and CN-76's during these attacks, but performed no other displays.

The attached birds usually retreated immediately, without display. But once one of the birds went into a slight TV flutter, drooped its wings, and Q'd (wam up), as it retreated down an electric cable in front of the advancing O A. This TV + Q was silent, and was not accompanied by any trace of ST. Must have been produced when escape was predominant. Cause an appearance pattern.

After a while, the 2 other birds did not follow the A's to the nest very frequently. One still showed up occasionally, however, at least as late as 8:30 a.m.

When the A birds first started to come to the nest just after dawn, they uttered CN-76's, not free notes, as they landed and when they moved about inside the nesting tree. They uttered CN-76's in such circumstances, when they were by themselves alone as well as when they were accompanied by one or both of the other 2 Planis-colored. By 7:30 a.m., however, the A birds had begun to utter free notes.
end of NW Fall's when they landed and moved about inside the nesting tree just like yesterday.

At one time, early this morning, a Palm Tanager landed in the nesting tree of the A Plain-colored Tanagers. Noting the A very greatly, she immediately assumed a "General Huff" posture (see below), and performed several supplanting attacks upon the Palm Tanager.

General Huff

Leop Hered.

Rudbeck feathers look veryhaven.

The position of the wings was variable in this posture sometimes

touching or rump. Sometimes dipped a little more than in the drawing.

The position of the head was also variable. Sometimes raised a little

more than in the drawing Occasionally lowered, abruptly, to a moderate ex-
tent. (Such lowering movements may have an indication of precursors of retrax-

alized Bowens like that of the Seminii?)

He q remained silent throughout the whole period she was in the General Huff. She did not show the slightest trace of ft, TV, Gp or even G.

The q was in the General Huff immediately before, after, and between at least 4 or 5 supplanting attacks. I picture that she went out of the General Huff when she actually attacked, but her attacks were so fast that I couldn't follow them. This seems to be the most long-

continued display of the species.

It is obviously hostile and very ugly in nature. Probably good
used when both the attacks and escape drivers are very strong. Attacks probably only slightly predominant. Although the q did perform a few attacks, she paused in the General Huff, each time before she did so. Obviously, a buildup on her courage during these pauses.

I might add that the q remained quite silent throughout this whole incident, even when she was actually flying to attack.

Eventually, the Palm Tanager flew away. Then the q attacked a bird in the nearby tree. The q was in the General Huff quit before delivering the attack. The General Huff may have been a "carry over" from the Palm Tanager incident. Quite silent during the General Huff before attack and during the attack itself.

A unique feature of the General Huff was the white tail feathers of the Palm Tanager. The tail feathers were white, with white tips, and the outermost feather was white with a black tip. The greenish-blue body of the Palm Tanager was also visible. The q remained silent throughout the incident.

The whole General Huff pattern of the q was strikingly similar to the Black-billed Euplectes, a species of this genus.

Early in the morning, I saw a Green Heron flying by. It was a beautiful sight, with its long legs and pointed wings. It was a beautiful sight indeed.

Late in the morning, I saw a Green Heron perched on a branch, with its wings spread out. It was a beautiful sight, indeed.

A q, or one like it, was seen feeding on a m., at least 5 times this morning. It is often difficult to determine exactly what it is feeding on, as the bird is always very agile. Perhaps the behavior of the birds in the m. is similar to the behavior of the q in the m. in other cases.

Since the q gave a "freeze" note as it flew to the q and then mimics the bird's call at the m. In three other cases, there was
no display by either bird before or during the feeding or transfer of nuns.

But the 8 flew away from the 7 with typical CARNEGIES.

The 7 is marked with an aluminum band, while the 8 is unmarked, so the 8 birds can be told apart without difficulty.

I watched the A birds building again this evening. I have now seen them building long enough to be able to say that the 7 never or almost never does any actual building himself. All I have ever seen him do is give nuns to the 8, and even this is relatively rare.

The head shape of this species, at least when the birds are relaxed, is convex:

---

I have now decided that pair A is not the pair which had the nest next to my house a few days ago. The A birds were followed by two others, presumably young, BLANCO-banded this morning. This morning there was also another pair, in an area nearer my house, which was attended by a single other bird. I think this latter pair must be the one which had the nest by my house.

If so, this means that I have heard "free" Notes uttered by bird of two different pairs.

The A birds behaved in much the same way today as they did yesterday and the day before. But perhaps they built a little less frequently.
Gangara, Mar. 27, 1961

I see today there is probably more than half completed.

The A birds certainly do not utter “Jeez” so frequently. But I think that one or both birds sometimes utter such notes when flying into the nesting tree, or within the nesting tree, in association with other notes.

The A bird and supplantled the 2 attendant birds when ever they came near the nest. Some of his supplanting attacks were silent; others were accompanied by CN Hill's. Sometimes the attendant birds flew away silently, at other times they uttered CN Hill's as they went.

The A fed the 4 once when they were in a tree quite far from the nesting tree. He flew to her with a CN Hill. She perched at him as soon as she got the food, and he then flew away silently.

Gangara, [illegible]
March 27, 1961
Bain Colorado

This afternoon I watched a flock of 7 Plum-coloured moving about in the general neighborhood of the nest of pair A and the area where the pair which built a nest by my house has been for the last few days (I shall call this latter pair "AA"). This flock was almost certain, composed of 2 family groups, i.e. the A birds with their 2 attendant young, and the AA birds with their 1 attendant young.

This group was a nice example of intra-specific gregariousness during the height of the breeding season. The birds stayed together, following one another over short distances, for at least an hour.

There has been one apparently unmated Golden-waxen around the clearing for at least a week. This bird stayed with the flock of Plue
colored Gaudiges for minutes or end this afternoon, but it tended to leap
cen close to the Plain-colored than they did to one another. The Golden-
mark also tended to leave the flock from time to time. At least twice
when the Golden-mark was in the flock, it was attacked by one of the
Plain-colored. The Golden-mark always retreated immediately without
display or resistance.

The vocal patterns of the Plain-colored this afternoon were inter
esting. When moving about, in flight, they tended to utter a lot of ordinary
CN’s, sometimes sung. Usually in short series (perhaps usually 3 - 7
notes). These series were not unusual as sound as the notes of CW Hill’s
There were quite a number of supplementing attacks and chases in the flock
from time to time. It was only during these attacks and chases that one
or more of the birds, uttered enduring, CN Hill’s and/or unmusical, loud
and hard CN Hill’s. (I am quite sure that both types of CN Hill’s
were uttered. But not always during the same reactions. I think that
enduring CN Hill’s and unmusical loud and hard CN Hill’s are easily
told apart.) I did not hear the “Sweet” Notes of “Freeze” in this
afternoon. The vocal behavior of the birds this afternoon may have been
quite typical of the “non-breeding phase.”

Sanugara, May 28, 1961
Puro Colorado

The Plain-colored are still in a flock this morning (I am writin
of this at 7:05 a.m.) At least 6 birds moving around together.
The all come to visit the tree in which the A’s built their nest, but
only stay a few minutes.

The A’s themselves, who are presumably included in the flock,
I have not done our building all this morning. Is this because the work is completed? Or because we had a lot of rain yesterday?

Interestingly enough, when all the birds of the flock are together in the nest tree, they all combine to drive away intruders of other species. They all fly to the intruder with CN Tills and/or unusually hard chirping CN Tills. This usually induces the intruder to move on.

If the intruder does not move on immediately, all the Plain-colors only perch around it, silently, for a few seconds, before flying at it again with more CN Tills and/or birds' sharp CN Tills.

During such periods of silent perching near the intruder, one or more of the Plain-colors may assume a General Huff posture like the ones I have seen before. Obviously very high intensity in spite of its silence.

One bird in a General Huff this morning looked intently down at its perch, and then BW'd, rather slowly.

I have frequently seen Plain-colors perform BW's, usually rather rapidly, without General Huff, in a wide variety of circumstances, whenever 2 or more birds were together. I suppose that some of these BW's may have been "displacement."

I have never, however, seen the Plain-colors raise and stretch their wings, like Palm Tanagers, in circumstances and in such a wa
Almost 7:15, the A bird returns to the nest tree, with the other members of the flock, after being absent for some time. This time the Aq is carrying mud. And this time, the Aq tries to drive off its other members of the flock. In other words, nest building and intra-species warriorism are incompatible!!!! After this incident, the Aq stops building and the flock comes together again and stays together.

Tangara, I
March 31, 1961
Pine, Colorado

Surprisingly enough, the Q of pair A spent quite a lot of time sitting quietly on the nest (which is now completed) this morning. Do you suppose she laid an egg yesterday?

The Aq did not usually stay near her while she sat. When she was off the nest, however, she usually stayed near the Aq, or he usually stayed near her. They usually flew together. They were seldom or never accompanied by other Plain-coloreds. I wonder how they managed to celebrate the other members of the flock?

Tangara, I
June 12, 1961
Nipales

Rather late this morning (ca. 10:15 a.m.) I saw a pair of Plain-colored Tangara engaged in m.o. Building a nest in a tree. Their behavior
was much like that of the other years I have watched at a comparable stage of the breeding cycle. The male accompanied the female to the nest, but did not build himself. Both birds uttered CN Hill's whenever they flew in to the nest (once, one or both may have uttered "freeccececece" Notes instead). Both birds also drove off a pair of Red-tops in an adjacent tree, by means of unchirred supplementary attacks. I shall call this pair "X".

Back to X area 5:40 a.m. No birds around! Still none of X or 03! But other species becoming to wake up now.

Plain colored first show up 6:12. Building. I think X is blood. Not X now. No more than a trace of CN Hill then gone again immediately. Back again 8:30. Reentering X. CN Hill as they arrive. X goes to build immediately. Then leaves. Then both fly off again. Back again in a few minutes. More of teh activity. CN Hill's by both birds both approaching and leaving the nest. Then back again 7:00 a.m. CN Hill's while flying in X straight to nest. A hops around feeling. Fitters a "freeccececece" notes while hop ping near the nest. Then flies up to nest to look at X or peer into the nest. Fitters a "freeccecececece" note as he does so. Then X goes back to feeding. Finally both birds fly away with more CN Hill's.

Leaving myself 7:15 a.m.
Yesterday morning, David Snow and I went down to look at a nest of D. mexicana (the sulphur-bellied Fantagor).

The young of this nest were quite vocal. Uttering lots of FB notes "zhee zhee zhee zhee zhee zhee zhee zhee..."

The young were fed apparent by both parents. The parents were sometimes followed to the nest by one or two other birds, in adult plumage. Presumably young of earlier broods? It is possible that either one or both of these accompanying birds also fed the young in the nest, at least occasionally.

When the parents first fed the young, they came to and left the nest quite silently. But later on they began to utter CN's as they flew in and out. These CN's varied from something like "Fif" to something like "fetch." Always (?) uttered in series. Sometimes slow series. At other times, accelerated to CN-Fell's. CN-Fell's very reminiscent of Plum-colored Fantagors. Uttered when birds of the pair came in to land together, also when all 4 of the adult birds flew away together. Habit???

According to David Snow, these CN's and CN-Fell's are the only notes uttered by this species. He has never heard bids of this species utter any other "song."

The WF's and TF's of this species seem to be quite the same as the re of related species.

I am impressed from talking to other people and observing the 4 sulphur-bellied this morning, that this species may be more or less the "nicer" of the Golden-margined Fantagor. It seems to be the most common,

Yesterday afternoon I went up above Simila, to watch some Bay-headed Tanagers.

The local subspecies is T. quijotae viridissinna (= 110111
It is quite different from the Panama form, in color. Having the bright turquoise blue.

The general habits of these birds were quite reminiscent of those of the Bay-heads in Panama. Forest, or forest-edge birds. Not particular to vegetation. But, according to David Snow, they occur in lowland forest as well as montane forest.

The only interesting reactions I observed yesterday afternoon were CNs, or what appeared to be CNs, "feet." Notes. Quite reminiscent of the SNs of Plain-colored Tanagers in sound. Sometimes uttered in series, but not accelerated into CN Bill's.

The Knows say that they have heard the local Bay-heads utter a call more or less common, "see see see thee thee thee." Musical (via murr hay). Is this the "song" of the local birds? ??

Jungara, I

July 28, 1961

Lucia

Here are some notes from D. Know on "song" quijotae viridissinna.

Phrase of 5 notes: "see see see thee thee thee."

Sometimes last note omitted.

Yesterday morning, I watched a single *mericana* feeding in the trees near the station here, fluttering both C.N.'s and CN-Fells in flight between trees.

Jungara, I.

January 31, 1962
Bane Colorado

Last Sunday, January 26th, at lunch time, I suddenly became aware that there was a nest, containing one mature, well-grown young, in a tree outside the dining room. A nest of B.C.'s.

I began my observations by watching the parents feed in a nearby tree, hopping from twig to twig, uttering lots of single C.N.'s, and a few single C.N.'s, jumbled together.

Then, when the parents flew to the nest, there was a sudden burst of "treee treee treee treee..." notes. Very rapid. These notes were presumably eventually identical with the notes I called "treee treee..." last year.

Yesterday, January 30th, I waited the same levels at greater lengths, off and on for approximately an hour after dawn.

The young bird spent the whole of this period sitting on the edge of the nest. Uttering a continuous series of notes at moderate intervals. "treee treee treee treee treee..." Presumably "bc" notes, although some of them had a slight rattle undertone. The young bird sat in a rather hunched posture, which it uttered these notes from.

The rhythm of the notes was accelerated, but the individual
notes did not become longer, when a pair of pt's flew over the nest about 10 ft above it. There may have been the parents. Apart from this one dubious incident, the parents never approached the nest while I watched it early in the morning.

About 17:10 a.m., I saw a pair of (presumed) adults feeding in a tree about 30 ft from the nest tree. The young bird apparently saw the pair at the same time. It immediately began to utter "pee-ee" notes, with a stronger rattling quality than the notes it had been uttering earlier. The pair did not respond in any obvious manner.

I looked at the young bird again at noon time. It was still sitting on the edge of the nest, but uttered slightly different calls: "see-ee-ee-ee-tu-tu-tu-tu-tu," and "see-ee-ee-ee-tu-tu-tu-tu-tu". The "pee-ee" part of their calls was preserved.

The bird opened its bill quite widely with both the "pee-ee" and "tu-tu-tu" notes. Probably closed between notes, sitting in the posture shown on the following page. (This was almost certainly the same as the posture accompanying pt notes earlier in the morning.) Absolutely no trace of 8.
Picture with "freez" and "thud"

Notes

Food begging with Ω

Ω largely horizontal

Portion of head extremely variable. Pointed straight toward parent (usually do
unward during most of the food begging)

Neck may be stretched forward and/or downward.
Then the parent appeared and flew to the nest with food. At the same time, a whole burst of "freeee" notes was uttered. Very soon, much the same as the "freeee" notes heard when the parent flew to the nest on Jan 26th, but the individual notes were probably somewhat lower and shorter. Also at the same time the young bird opened its bill very widely, begging, and assumed TV. The parent fed it repeatedly. It contained 8 + TV before and after all the feedings. The notes also continued throughout the whole procedure.

Then the parent flew away again. The young bird remained behaving as before. The parent came back again, and the whole begging-food-begging process, with accompanying displays, was repeated in exactly the same form as before.

On both January 28 and 30th, I was more that the "freeee" notes uttered when the parents wanted the young were uttered by the young. But looking over my previous notes, and my accounts of adult birds uttering freeee notes during nest building, I have begun to be assailed by doubts. In any case, the whole problem of freeee notes must be studied more carefully.

The young bird was still on the nest, still begging and be sung feed at least on January 30th. But this morning it was gone shortly after sunrise. Probably natural departure.

Fangara, Jan 31, 1942

Fangara, Francisco Colorado

The young bird described above now seems to be in a clump
Feb. 1, 1962, J

Tangara, I.

Tits outside my house. Can't see it. But uttering "freeeece-
too freeeece too freeeece too freeeece too freeeece too freeeece..."
Cells outside my window. Definite rattle undertone to the "freeeece-
too" notes.

Then, by the time I get outside, it has switched to uttering
"freeeece freeeece freeeece..." Notes 10:15 a.m.

Heels silent, when parents are near!!! Parents apparently
interrupted by me. Uttering CN Hill's. Parents leave, but young bird
doesn't start calling again. Is it left too?
No! Parents go back to tree as soon as I leave.

Tangara, I.
February 3, 1962
Salvo, Colorado

The juvenile PCT described above was still around this
morning, sitting well hidden in the top of a tall tree. "Beggars"
almost steadily, both when alone and when approached by parents.
Once, when alone, he uttered a series "freee to freee to
freee to freee freee freee freee..." Note: freee to freee to
Apprently declining intensity.
At other times, he uttered similar notes in a less obviously
progressive sequence, when alone. Also occasional "freee to freee"
calls.

None of the notes uttered when it was alone were accompa-
nied by G on TV.

Once, when it was approached (and fed?) by a parent,
it uttered "Zlee eee zlee eee zlee eee..." notes. With G, but prob
able, no TV.

Once, in similar circumstances, it uttered "sreee sreee sreee sreee-ta sreee-ta sreee-ta." Again with Q but probably no TV.

Once, in similar circumstances, it uttered "sreee-ta-ta sreee-ta-ta sreee-ta-ta..." With both Q and TV (this time it was definitely fed.

Faugara, I

February 4, 1962

B🚚co Colorado

This morning, I saw a PT (possibly the young birds described above) utter "zlee zlee zlee..." notes, with Q but no TV, when another PT was closely.

Faugara, I

February 17, 1962

B▶.co Colorado

This morning, when I was rowing to the boat to go into town, I heard "sreee-ta-ta sreee-ta-ta..." notes, like those of the young bird described above.

Faugara, I

February 17, 1962

Rio Pedras

About 8:30 a.m., I saw 3 PT's flying about together. One of them did a little silent Q (with wings drooped) when they were all
squara, Feb. 17, 1962

Perched close together. No TV or S. Didn't lead to anything.

Squara, I February 21, 1962
Rio Pedras

Came upon a single Golden-mantle at 8:00 a.m. Perched on top small tree. Aware of my presence, but not, apparently, too upset about it. The bird uttered R after R. Each R beginning somewhat gradually. Could these R's have been pairing?

Squara, I February 24, 1962
Rio Pedras

presumed

6:30 a.m. Heres a 2 Golden-mantle here, flying from perch to perch, rapidly, in a very excited manner. Utters 1 or more R's at each perch. Continuing until approximately 6:50 a.m. Apparently alone all the time. Each R begins "gradually": "Tik tik tik tik tik tik tik tik....."

The preliminary "Tikk" (or "Tuck") is always clearly higher than the subsequent R's. Most of the R's are very long. The bird usually uttered these calls from very high and exposed perches. They are not accompanied by special postures or movements. Uttered from a great variety of unobstructed standing and pre-flight postures. Not usually sitting in upright posture.

Is this the equivalent of Dawn Calling?
February 25, 1962
Rio Piedras

Jangara, I.

Working in same area as yesterday.

The presumed A Golden-waark began vocalizing at 6:12 a.m. "Juke, Juke, Juke, Juke, Juke". Repeated almost without pause. The same as yesterday — except that the R's began abruptly. The number of "introductions" Juke Notes quite variable. Theurd was still apparently solitary, flying from perch to perch, when he began vocalizing. But by 6:34 he seemed to have been joined by another Jurd. After this, he continued vocalizing at first, but uttered R's (at least) much less frequently.

Are these Juke Notes SHN's?

Later in the morning I came across a pair of Golden-waarks which may have been the same pair. One of the burds uttered both "Juke" and R when the 2 burds flew fairly close together. Then only "Juke"'s when the two burds fed and flew from perch to perch together.

All this would suggest that the Rattle of this species are not homologous with the Rattles of Chlorocygns, Taumeclycles, Saltator, etc.

Jangara, I.

April 16, 1962
Cena Punta

Jangara, I.

Working near upper pasture today.

3:45 p.m. Came across single Silver-throat, feeding in tree Uttering unusual "CN"'s of the species. Today I transcribed these
note as "D33 bit, D33 bit..." Then the bird flew into a tree above me, about 20 ft away from me. Looked from side to side (swinging whole body - tail swinging opposite side head). Uttered more "CW's. Some much more R-like than others. The next R-like may have been what I called "HCW" earlier. Then the bird uttered a single, brief, high, thin, soft "Till" (vocal note not more than 3 or 4 "syllables". Quite unlike anything I have ever heard uttered by a bird of this species before. Possibly "song"? Strictly homologous with W's other species and R's of the Golden-mack? Then the bird flew away (when a dog approached).

Jaujara, I
April 17, 1962
Ceno Punta

Working in same place this morning
8:35 a.m. Came across single Silver-throat. Obviously same bird as yesterday. Uttering "CW's as usual. Today I thought that almost all these notes could be transcribed as "D33 bit." Buzzy but not rattling.

Jaujara, I
April 19, 1962
Ceno Punta

Walking along road near upper border clamos this afternoon.
Lots of Silver-throats around today. But I didn't see any other calliotes in the area.

Walking along the path, I noticed that the "CW's of the Silver
Street are extremely variable. Some could be transcribed as “Dzheet” while others should be transcribed as “Dzheut.” Some of the “Dzheet”s are much higher-pitched and more urgent-sounding than others. The most high-pitched and urgent are very reminiscent of the PN’s of other species. I think that these PN-like notes are usually uttered by birds flying away when there are other birds nearby? They are presumably other real PN’s or FCN’s.

5:10 p.m. Heard a single Silver-throat, apparently alone, uttering a very distinctive series of “Dzheut” Notes. Very regular. Approximately 24 per minute. Notes themselves are comparatively short, harsh, and low-pitched, but not rattling. The bird continued uttering such notes for at least 10 or 12 minutes. Occasionally interrupted by single “Dzheet” (not as high-pitched or urgent as the “PN” or “FCN”) from several different stations in different but adjacent trees. Bird usually perching at each station for an appreciable length of time. Probably in semi-H Pasture. With lots of pouting (really just switching my focus side to side). Many WF’s. Probably about 30 TF’s. I couldn’t see the bird awfully well as I was usually just below it but I think it had its underparts fluffed a bit of the time it uttered this series of notes. Once it ruffled, fluffed or ruffled its yellow-bellied feathers. The wings were always slightly drooped (except during WF’s).

This series of notes may have been a hostile reaction, provoked by my appearance or (much more probably) I think, an attempt to call in a mate. The whole performance was much more like Dzheut than anything else I have ever observed in call notes. Certainly by far the most regular series of notes I have ever heard uttered by this species.

The bird eventually flew off down the ravine. Still silent as it took off. I think it probably went to join its mate, as I found 2
birds in a tree. 5 minutes later, approximately in the same place it appeared to fly to,

Three more birds were duetting - after a fashion. One uttering single "Dz-bleat"s (not as high-pitched or urgent as the "CN"s or "F-NN"s), the other uttering "Dz-bunt"s (quite similar in quality to the "Dz-bunt"s uttered in rapid and regular series a few minutes before but uttered much more slowly and at irregular intervals). The whole duet was quite regular. Unfortunately, I couldn't see the birds well during this performance. Apparently feeling

Both birds flew off, together, after a couple of minutes.

It seems obvious that the "CN"s of this species include the homologues of several different patterns of other genera. Originally, different patterns seem to have become incorporated, as poorly distinguishable variants, in the "CN" complex. This is also what seems to have happened in the case of the very different-sounding "CN"s of the Plain-colored Junco.

I don't know why the vocal repertoire of this species should be so reduced - in view of the fact that it is not very gregarious. (Possibly partly because the quality of its voice is so distinctive??)

Jangara, III  
April 20, 1962  
Cuno Puxta

Working at Lewis's place this morning. Around 5:45 a.m.  
first heard fewer thrushes vocalizing at 6:00. Approximately 3 birds. All uttering single "Dz-bunt" notes. Note: bars of note vary short. Uttered at irregular intervals. Faintly rapidly, but not as fast as the DC-like series yesterday afternoon.