3 Feb., 1963:

Bird was "singing", a fast, chattering, mimed-like jumble of notes such as: tae-tae tae tae tae tae tae, etc., rapidly. This notation not accurate but written from memory. Recorded a similar prolonged vocalization from species in Ecuador just a year ago, I left the tape with Martin.

While calling the bird was clinging to a near vertical branch, holding its body horizontal, head twisted to be upright. The feathers around the vent were erected, the vent itself obvious (I could see no 2nd bird). Tail was over half-fanned, showing white, was wagged horizontal (to one side, pause, to the other, pause, ...), not rapidly. Every few sec. the bird spun around to face the other direction on its perch. Singing was almost continuous for ca. a min.
I have now two pairs of these birds.

- Rico Gorelo = lanniortus
- Bum Bum = cuticapilla (?)

1. Rico Gorelo has a lavender ring, left leg
2. Rico Gorelo has a dark blue ring, left leg
3. Bum Bum has a red ring, left leg
4. Bum Bum has a dark green ring, left leg.

These birds have been less active than the Honey eucris
and I have not noticed the following patterns:

- They all gap quite extensively during hostilities.
  Obviously ritualized. In "head forward threat posture" or ordinary sitting posture, or posture commencing:

  Apparent quite silent.
  Very little CR in this drawing.

In the case of the 3rd L., at least, this gaping
may be accompanied by very very pronounced CRs,
involving blue part of crown and upper back of nape
as well as yellow forehead patch.

His 3rd L. also does CR without bill opening
fairy sort quite frequently when any of the other birds
come near. Feathers may be sucked lowered repeatedly.
Janaza, Nov. 3, 1957.

I think that they all have a weak "chip" or "chip chip" as CN.

Like the Honey creepers they have very little or nothing in the way of ritualized wing - or tail - flutes. The few tail - flutes I have seen have been part of body movements.

The Law L o'7, however — who is by far the shyest of the four — sometimes makes many many repeated but very slight wing - flutters. These are so numerous that I suppose they might be ritualized — but I doubt it.

I observe put the Pico Griseo and BunBuns in the outside aviary, where their movements immediately attract a cloud of Rufous vented Euphonia = fornicatrix =.

This bird either sits on a nearby twig or repeatedly tries to get in at or join the other mimic's cage. When just sitting and watching them it does extreme Wing flutters (WF) very rapidly and almost constantly. The wings are raised quite high above the back with each fluke, revealing the white - lining with a conspicuous flash. The posture with which this WF was combined was a satirical low - forward posture with tail slightly raised (and perhaps just a little bit arched) — but not very ritualized looking. The WF's seem to be accompanied by some TF's, but these were so un-
January 6, 1957, II

conspicuous in companion with the several's that they were hardly noticeable. (All this was probably also accompanied by No. but I couldn't distinguish the notes of this particular bird in the general hubbub.)

Moderate extreme.

White tail patch quite visible.

Looks very plump, perhaps even more so than I have drawn it.

It is probably significant that this pair does not ring at the new birds in what is presumably his "home range" (at least). See also today's notes on Cyanuripes.

This bird does this steadily for at least a half hour and still returns to do some more from time to time.

January 7

November 13, 1957

Barno Colorado

During a dispute over food, the & Pico Gordo did extreme G with very pronounced CR.
Januari 17.

November 29, 1937.
Barno, Colorado.

- Pico Jordo = caninrestus
- Buni Buni = cutucapilla
- Fulvous-veiled = fulmicrissa

Quite a number of Fulvous-veiled birds can be seen around the clearing from time to time. Always solitary (at least the ones I have seen so far) and moderate low in the vegetation (sometimes almost down to ground).

I have one pair of Buni Buni (1 banded red left, & dark green left) and one pair of Pico Jordo (Flamender left, & dark blue left) in captivity here, in the large aviary. They all have the usual tawny WFs and TF's.

In addition, I have seen some much more exaggerated WFs by 2 Fulvous-veiled which were attracted to the capture birds. Wings flicked out, probably up a little and then down. Done repeatedly, very rapidly, for 5, 10, or 15 minutes at a time. White wing patch flutters conspicuously with each movement. I am not aware of this as a definite distinctive peculiar display, or just an extreme case of "inhibited cut back of flight" like ordinary WF of this and other species. The birds I saw do this exaggerated WF (EWF) were certainly hopping back & forth very excitedly. And I have seen other cases of wild Fulvous-veiled it's visiting the capture birds without a trace of EWF. The few EWF's I have seen were so conspicuous that I didn't not
Jiagiya, Nov. 29, 1954.

I presume they were accompanied by at least the TF's, but not particularly, exaggerated ones.

When I first got the captive birds, they were first put in a small cage, and both the Rio Gordos got involved in fights (with Honey creepers). Both died. The Auc nullus drew his head back during the G-5, and sometimes raised his yellow-crown feathers.

This latter reminded me of none of the caudilevictor - such as the Auc - that I have watched.

Evening Gros from time to time.

The CN's of the two captive species are the usual language type. They're trisyllabic or "what." Usually uttered as single notes, occasional double or triple ones. None of these birds get very excited nowadays, so it's always possible that they may be capable of uttering longer series under greater stress. Still, there's contained a real difference between the relatively few CN's of this species - and such groups as Amicus and Rhamphocelus - and the comparatively numerous CN's of the Tampora group.

These CN's are often synchronized with TF's and WI's. J.E. Most CN's uttered by non-flying birds are accompanied by "p ups, although some (many?) F ups occur without CN's.

This is also true, I think, of most other species of other genera - with the possible exception of Tampora.

Double and triple CN's are particularly apt to be given by flying birds.
The 2 Pico Gordo in the yard, and in the aviary, now, who shows signs of great aggression. He way suddenly attack another Pigeon, sitting, was busy. I have also seen him "yawn" or circumspectly, which I thought might be hootle. Q.E.D. this may have been a C (but without any feather motion or utilized movement).

The 2 Pico Gordo, sitting by himself, suddenly uttered a heterogeneous medley of quite distinctive notes. A few loud, nasal "Wah" notes (uttered as single notes or in pairs), irregularly alternated with whistle-like "Whoosh"s or "Whoosh whoosh"s, or even "Whoosh whoosh whoosh"s. These may have been provoked by the appearance of a deer nearby. Of course, it was impossible to tell what the causal difference is between the 2 types of notes might be, but they were both becoming highly intense. It would be tempting to conclude them with the HAC of other races, and the ACN of the Goldfinches.

The 2 Pico Gordo was sitting more or less peacefully on his perch when a seed-eater landed near him and sat there for a while. The Pico Gordo began it's (not very extreme) and Bill-chirping (one wipe to each side) heeding away from the seed-eater for each BW. He had not been eating recently. He didn't seem particularly excited, although he did fly away eventually, but this looked as if it may have been more than coincidence, and it was reminiscent of the goldfinches.
December 7, 1957
Denver, Colorado

Previously some incident just occurred, which I largely ignored, but I did see the q. Bui Bui give a very brief clear whirr, from a completely untrainedized picture, while she stood near the Pico Gordo. God alone knows what it meant.

The q. Pico Gordo responded by an extreme prolonged G, without any signs of CR or other ritualization. He has been doing this several more times when the q. Bui Bui has come near.

The Pico Gordo does seem to be the most aggressive species in the cage, but it may be just that they are the largest birds here.

December 7, 1957
Denver, Colorado

When I put the hawks in the aviary today, (see the notes on Hyacinths), the q. Euphonia reacted violently, lots of flying about, lots of flutings, and lots of CN's and Al CN's. The q. Bui Bui reacted much less violently. A little flying about, some flutings, and few or no CN's or Al CN's.

The q. Pico Gordo was perhaps the most disturbed of all, and I think that I understand her CN's and related patterns better now. Her usual CN is a single "Wheee" Note (not particularly nasal or hoarse or harsh), or more frequently a double "Wheee--whoop" At higher intensities, the notes become louder, and are more often repeated; but there are apparently...
never more than 2 notes in a single "series" of CN's, i.e. there is always a definite or slight pause between the second and third notes if these notes are uttered). The ALCN seems to be a single, lower, "clearer", shriller, perhaps more colubrine-like note. Relatively rarer.

The CN's of the q Buni Buni are much the same as those of the q Rio Gordo, but her longest "series" do not include 3 notes (i.e., there is no pause between the second and third notes if 3 notes are uttered on succession). She also utters double CN's quite frequently, but they are presumably lower in intensity than the average of those of the q Rio Gordo. The q Buni Buni also seems to utter "multiple" CN's more frequently than single notes.

"Multiple" CN's, like doublets and triplets, are perhaps comparable to the CN's of the Plan Javases in the sense that they have become partially "emancipated", in form, from the single CN. This may well be true of the multiple CN's of a lot of other species as well.

I think that the q Buni Buni also has an ALCN like the q Rio Gordo, but I can't be absolutely sure of that yet.

I also think that the q's of both species have ALCN's, but again I can't be sure.

In both the capture jaws the q is certainly dominant over the q, at least when she can snatch food from her bill without fear of retaliation.

Once, when an unfortunate bird landed too close beside the q Rio Gordo, he did so with very pronounced tongue-swing.
All the 6's of both sexes of both species, incidentally, smell faintly bright pink inside the mouth.

Javagra, I

December 8, 1957

Bainz Colorado

When I put all the fledglings into the aviary (see today's notes on *Pteranidae*), the 9 Bin Bin was the only bird who seemed much upset. She flew about the cage excitedly. She gave a few shrill single call notes (there are like those of the 9 Rio Gordo); a lot of the double, triple, "Whoos, whoo" notes which I have been calling "multiple CN's," and, especially as she calmed down, a lot of less penetrating, less fluttery (?) or trumpet like (?), "Sch" notes (they really weren't very loud at all), which came as single notes or in twos or threes, but which didn't seem to be organized into "real" series. These "Sch" notes are above the "real" CN's, the 9 tried to give them as she flew up. But what are the "multiple CN's" (MCN)? They are so very distinct, morphologically, that they cannot be merely variants of the ordinary CN. Their occurrence today and yesterday during the hawks incident shows that they must be hostile — and might perhaps indicate that they are produced by a more or less relatively strong escape drive.
Eureka, Dec. 9, 1957

= White-vented = minimus

I saw a small flock (8 to 10 birds, approximately) in the trees of some mixed grassland & scrubland, outside town. Their calls were very active—sattler reminiscent of the Plain Savannah—a resemblance increased by the fact that the flock “twittered” as it flew. This effect due to the fact that at least several birds in the group uttered series of “real” CN’s, apparently just like those of the & Beau Bui described yesterday.

Jutara, I

December 10, 1957,
Bunco Colorado

The & Beau Bui and both Pico Gorillas seem to have “real” CN’s one or two notes uttered just before or during flight, but they give these notes (and all the other CN’s) much less frequently than the & Beau Bui. Why? It is possible that the & Beau Bui is more excited than the others when I watch the avairy, and this (plus the behavior of both q’s when the hawks and the red-tailed were introduced into the cage) might suggest that all these notes contain an element of excitement.

Still—on the way in which the & Beau Bui tends to give CN’s after all has flown across the cage from the other birds, might suggest that this is an “agitation” pattern, the result of frustrated aggression.

All the Fulvous-vented Ecphoriomus I have seen recently have been high in the tree-tops.
A hawk flew overhead near the river this morning, and immediately all the birds took cover as if they knew the hawk was near. One bird of one species, at least, uttered a lot of McN’s — one McN including 5 notes. This would indicate that the McN is a warning call, and also, probably, that it may function as an alarm pattern. As far as I know (or remember, that is), none of the birds uttered the shrill notes I have been calling as McN’s.

Again there was a burst of McN’s by the avian birds when a hawk flew overhead.

Then, when I put in a Rufous-ventured, the Rufous-ventured gave a few more McN’s. She was the only one of the old inhabitants to do so (she always gives more than any of the others). Again, looked like a form of alarm call. But she was fairly isolated when she gave these notes, and she sometimes gives a few McN’s when she goes down to feed alone, so it is still hanging possible that some of them are due to frustrated aggression or — but very unlikely.

I have put two wild-caught Rufous-ventured Euphonia in the cage: 1 q. banded silver rufous, and 10 b. b.
Rio Gordo, Dec. 24, 1957, II

Ted silver, who seems to have had antibiotics and seems to be doing. (Yes, he quite has.)

The Q Refers. ventral gave a few bower notes when I put the 7 into the small humping cage. There may have been hack. After being put in the avium, all the odd was fly about very nervously (showing very frightened, quite silent, with the usual endearment TF's and WF's.

Januqqa, I

December 28, 1957
Barnes Colorado

The pair of Rio Gordos finally started to become active today. There was a whole series of reactions between the Q and F for about 5 minutes. Essentially consisted of the Q flying to the F, repeatedly, displaying to him and pecking toward his face and bill, while he displayed back and (usually) retreated. There were certainly strong hostile components in the performance, and the whole thing may have been purely hostile - although there may also have been a sexual component, particularly on the part of the Q.

The Q would fly to the F and free him in this posture. Of a "general well development."

Fluff (Gfluff), particularly on breast, belly, and upper back. Very little cr. And wing not very fluffed, usually covered by the feathers.

For particular wing movements with this, but usually more or less G.
Quite silent throughout the performance.

The cock often responded by facing the ? in the same low posture
with the same G-guff, with, when G, equally little CR, and equal
silence. Then often, however, he tended to withdraw a little,
pulling his head up or back a little. In this posture, I think that
the general guffing was less, in the sense that the feathers were raised less, while the G was apt to less muted. Indeed, the CR
seemed times did a very slow but extreme CR (SOCR), or and
pronounced CR (usually the CR without G, I think). This extreme
CR was rather different from the drawing I made earlier. Involved
g long blue feathers of crown as well as the yellow ones of the face-
head. The blue-black feathers rather more conspicuous than the yel-
low ones in fact. Like this

This incident
the G-guff is a high-
relatively aggressive
with the low-porater (F) that
CR might be less aggressive.

Now, of course, I have seen similar behavior again
think the same, except that the ? was in F & G-guff, with extre-
G and CR, before withdrawing his head a little (maintain-
the G & CR after the slight withdrawal).

The forward peeks that the ? makes from her G-guff in F as either straight forward or slightly upward & forward. No tine
of any tendency to stand up and peck down at him.
I have got another Rufous-vented, bronzed orange left, which I have put in the aviary. When it was first put in, the other birds showed the usual very mild excitement. Nothing much, except that the Pico Gonde went into the G fluff once, briefly, with picking out. More, when it got close to the new & Rufous-vented.

The new Rufous-vented put uttered a hoarse, soft, "Hoo hoo ba," as she retreated before an attack by a Green Honey creeper, sounded exactly like the HAC notes of other species.

Her & Rufous-vented has been remarkably active so far, but also remarkably silent on the whole.

Pico Gonde

December 31, 1957
Bano Colorado

The capture of Rufous-vented did a pronounced and definitely ritualized G this morning when another bird came too close to him. Pulled head up & back at the same time. This "withdrawal" movement seems to be characteristic of the G-patterns of all the Syrphomans -- at least when it occurs alone with out other ritualized elements.

Her capture also gives lots of ordinary CN's while flying about or making rust noises of flight.

I ought to add that I have captured quite a number of ite
Janaqua, Dec. 31, 1957, II

Rufous-wrented Euphomas in the nets new— and as far as I can recall, they have all been silent when handled.

The capture I also seems to utter a few brief notes with a "rattle under tone" when going down to feed. I don't know what these can be.

Janaqua, I

January 2, 1957
Banro, Colorado

"Have now heard the capture of Rufous-wrented utter quite a lot of the "Batte CN's" (RCN). Usually single notes, sometimes doublets. Sounds quite a lot like a brief low-intensity R by the Green Youngquapas. It might be the homologue of the MCN's of the other Euphomas.

Janaqua, I

January 5, 1958
Banro, Colorado

The capture of Rufous-wrented has now begun to utter RCN's like those of the St....

All the capture Euphomas ran together, apparently a few inches apart from one another, in a Pagoda Bush last night (a different bank from the one the Blue Honeyeepers chose).

Someday last night, or early this morning, however, the & Ben Ben & of Pico Jemplo disappeared! Commonly in the general "honk-honk" sound, somehow killed by the Green Honeyeep..."
I have been watching the remaining Euphonias very carefully the last few days, but their behavior does not seem to have been much affected by recent changes.

I have been paying particular attention to Flushing movements, and I think that my previous descriptions of these patterns are somewhat misleading.

They all seem to have moderately prominent, frequent (if extremely variable) TF’s. They have relatively very little in the way of FE’s; however, one might almost doubt that the FE’s were utilized at all. Just occasional movements of tail (usually relatively very rare) as part of unvisualized preening body & head movements.

Definitely essentially a sideways movement, a jerk of the tail to one side (occasionally a jerk to one side and a jerk back again). Very little vertical component, sometimes completely absent. When present, I think that it is always V-D. The FE’s of the Pico-Gordo are more obvious than those of the other species, but only I think, because it has a relatively longer tail.

The Pico-Gordo and Buni Buni have both uttered men’s from time to time during the last few days. Both doubles!

The Pico-Gordo has been uttering “ordinary” CN’s from time to time as he flies about the cage.

Pico-Gordo

January 8, 1938
Barno Colorado
The capture of Bim Bim got involved in a little brief dispute with the Bim Bim and did defeat her in a forward posture (head low, pointed straight front) without any other signs of ritualization.

I have got a new Bim Bim, from the market via Mrs. Maynes. Banded black right. Was in good condition when I got it, but somehow she received a terrific wound on the forehead in transit. Still, she seems quite chipper now. Have put her in the aviary.

She has uttered quite a lot of McN's, both in transit and in the aviary. All doublets. (She also utters McN's from time to time, and there are also all doublets. The doublet McN would appear to be typical of the species - at this time and I can't imagine why the previous one did so many triplets.)

The new apparently did not utter any other notes, in transit or in the aviary. This would seem to indicate that she is or was in strong anxiety (and she certainly had a fairly strong escape drive throughout) "inhibits" the ordinary McN's.

But what does it indicate about the new whistle-like notes which I have been calling "ALCN's"? ? ?

There wasn't much in the way of a reaction when I put the new one in the aviary. But, later on, the Bim Bim did rush at her a couple of times, in brief supplanting attacks. Her attacks
wee quite virutalized — except that he dih, defenbly, fluff
the yellow breast is well feathers quite prominently (of breech)
during the forward rush (true supplanting attacks were not
flying, quit quick stiches sideways dawn a branch).

The 2nd Pico Gordo is giving few or no MCN's now. The
MCN's of this species would certainly appear to be generally rarer
than those of the Bin Bin.

Januaga, I.

Janua, 15, 1958
Paro Colorado

I have now heard the new 2nd Bin Bin utter MCN's of 3
notes.

The usual TP's of the 2nd Pico Gordo don't seem to have
any vertical component at all!

Janua, 20, 1958
Paro Colorado

I am afraid that my captive 2nd Rufous-ventured BinBin
did. I first noted her absence yesterday.

The 2nd Bin Bin seems to be settling down well. She
utters quite a lot of MCN's from time to time, and all the
once I have heard recently have been doubled. She seems to be
like my previous 2, in that she seems to utter more MCN's
than the 1st.
A wild Rufous-vented came to visit the captive birds this morning. Set on a low branch of tree and perched. Slight "YAAAY" sound of RCN's at first, some of them quite long, almost like "real" R's. Noticed that each time a RCN was uttered, the tail was depressed, in what seemed to be a definite but slow "poul" vertical D-V, no lateral component. Otherwise no ritualized postures or movements.

Then it began to alternate RCN's with what seemed to be "staccato" CN's. Rather whistling-like but soft "Whit". These gradually became more frequent, while the RCN's declined or stopped. Then the 2 flew away.

There have been more visits by wild Rufous-vented today. All of them have uttered RCN's. Some of these notes have been quite prolonged -- "real" R's.

I think that the biologic recognition of the RCN's of the Rufous-vent with the RCN's of the other 2 species is quite safe, as I have
now heard (but not seen) wild birds giving REN's in doublets and triplets just like the REN's. What the hell does this indicate about the possible homologies between the REN's of this Euphonia and the R's of typical Tanagers???


Well, I was passing by the amaryllis in a bury

note how far the blue goes down on the breast. This is one of the best field characters of the species. The blue on the chest of the Bur Bun doesn't go down nearly as far.

when I suddenly noticed that the Rufous-vented was singing! It presented like the one drawn above (sometimes sitting up a little more obliquely) with crown past slightly fluffed, upper back and lower breast & belly feathers quite fluffed. The song itself was most reminiscent of the WS of the Palm Tanager (and I shall call it WS also). Introduced, usually by one REN, then a series of more or less uniform notes like the "Tweet" Notes in the WS of the Palmers. Sometimes one or two notes interjected (in middle of "Tweet" part) which had a "rahtte undertone" they sounded like ordinary REN's. But they were, of course, also somewhat reminiscent of the tail part of the WS of the Palmers. Are these resemblances between the whole WS of this species and the Palm really significant??? They certainly look so.

These WS's of the Rufous-vented didn't seem to lead to any
The capture of Rufous-vented is ninguna this afternoon again. The crows just like before, but now obvious that the fluffing of the breast & belly feathers as shown on p. 20 is very unusual. The crows today has been singing in a more or less uneventualized posture. Like the one shown above on this page, with slightly muffled head, but no or
my little hump on the back. Often doing it in the presence of flying alertly around the cage, or perhaps even clinging to mole of squirrels associated with a little fluffing. He usually turns the head alertly, irregularly and not to any great extent during most WS's.

Juncal, Feb. 8, 1958

February 16, 1958
Barno, Colorado

I first noticed this morning that the # Bun Bun has begun to mug A WS especially similar to the WS of the Rufous-ventral. Very
soft and impossible to describe. The first WS's were usually preceded
by 1, 2, or 3 McN notes, and sometimes terminated by a single McN,
but these have gradually dropped out, leaving a pure marble
alone. (The Bun Bun hasn't shown any trace of rattle-like notes, and
any time in association with its WS J E. the place of the Rcn's of the
Rufous-ventral is taken by the McN's. Further proof that the Rcn's
and McN's are homologous.) The # Bun Bun has always given
this WS when he is sitting alone. Without ritualized gestures or
movements. He just stretches his head a neck up and forward a little.
The head feathers may be slightly fluffed, but there is certainly no "hump
on the back

I can also confirm now that the # Rufous-ventral also usually
presents his WS from the same unriualized or extremely little ritualized
posture. I haven't seen him give the WS with definite fluffing (as
out from the head feathers) since the first day I watched him
wag.

I have managed to catch another # Rufous-ventral. Bruno.

orange left.
This morning gave almost constant RCN's for about an hour after she was let loose in the aviary. In ones, twos, and threes — and one case of a series of fours — but all the series were very close together. Didn't seem to produce much except obviously "curious" approaches by all the other Euphonias in the cage (particularly from the Bui Bui, who seemed much more interested than the Rufous-vented!)

The similarities between the RCN of the Rufous-vented and the MCN's of this other species are so obvious now that I shall call them all MCN.

I am afraid that I will have to make another change now. This afternoon, some bird in the distance gave an alarm call, and a Rufous-vented in the tree by the cage (which I couldn't see, so I don't know if it was Rufous-vented) immediately began a long, loud vocal performance. Just a whole, very long series of RCN's, going so fast at one time that it was almost a "roll", comme ca: \[\text{\textit{rrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrrr
February 17, 1958
Barron, Colorado

The Rufous vented in the aviary largely ignored the new female most of the morning. After a little ordinary wind from time to time while perched by himself, then I come back from a short trip away from the cage to find an extraordinary encounter in progress. The male was squiggling in a posture common to standing in a very erect curved posture. (The angle of the body varied somewhat— it was a little nearer the horizontal.) Very sleek and thin, swayed from side to side, and then looked diagonally from right to left with the head forward. The ordinary wind. When I first looked, the female was sitting on a twig facing the performing male, crowded down in what seemed to be an unorthodox pre-flight posture. She then flew at the male, who retreated to a nearby twig a little farther away. I think that this must have been hostile and aggressive, at least to a very large extent. In any case, the male immediately began to fly again, in the same way, in the same extreme posture, etc. And the female came again, and he had to retreat again. This whole procedure was repeated a couple of times more, and then the birds finally separated.
Jan. 17, 1958, 11

Watching the 7th Refours-ventured this afternoon while he picked up and manipulated a long piece of straw. Hobbled it in his bill yesterday m.

Finally quite dropped it, and sat.

While sitting watching the avian, I heard a burst of loud clear whistle-like notes from the top of a tree about 50 ft. away. Apparently single, although frequently repeated. There were immediately answered by the capture of Refours-ventured with RCN's. I finally tracked down the bird giving the whistle in the tree tops and he turned out to be a 7th Refours-ventured. (The mate of the capture?) For a while he and the 7th duetted fora while, 1 whistle by 7, 1 RCN by 7, 1 whistle by 7, 1 RCN by 7, etc. etc. His whistle notes could be transcribed as “Whee-e-e-sco” too, but they were certainly clearer and more ringing than any notes I have ever heard from a Euphonia before (I think I shall call them “WWN”s). The strength of his WWN’s gradually declined, the 7 lured duetted less rapidly, and the capture of eventually went down to feed and shut up. The Avian continued to “visit” in a nearer tree, but I lost him in a rain storm. Then came a loud “quack!” from the tree.

A little later, there was a very noisy fight between some humming birds in the distance, which started a mild alarm in the avian. Everything froze for a few seconds. The 7th Refours-ventured gave a perfectly good doublet WHCN, "Whee-e-e-whoos" just as she went into the freeze. This was presumably an Alarm Call, like many of the WHCN’s of the other Euphonia, and sounded just like the WHCN’s of the other species (although I am pretty sure that it was no more than a variant of the slightly more
I wonder how many different types of CN-like note this species has? (In case I haven't mentioned it before, it does seem to have an ordinary CN-like the other Euphonias.) The Euphonias as a group would certainly seem to have specialized in CNs.

The capture of Pico Gorde still stirs up his belly feathers, quite extremely. But my theory, whenever he makes a brief aggressive jab or advance toward another bird which has come too close to him. This is the only overt hostility he shows their ways.

The capture of Bui Bui hasn't shown any sign of anything at all today. Why?

Janagra, I

February 21, 1958
Banjo Colorado

Wouldn't you know it? My fave Rufous-vented seems to have disappeared some time in the last 3 days when I was away. But I caught another this afternoon, branded white left so far haven't done anything at all.

Janagra, I

February 22, 1958
Banjo Colorado

A wild pair came to hunt the capture Rufous-venteds this morning. General behavior much as usual, much perching + flitting...
with lots of飞行物. The female came down to the roof of the aviary itself, while the male stayed in the branches moderately far above it. I noticed that the male gave lots of RCN's (including quadruplet), while the female - at least while he was actually on the aviary itself - gave only one or two instead. Does this suggest that the RCN's contain a relatively strong escape component? I think so.

It is certainly my general impression that females are more apt to give RCN's than are males, in most circumstances.

Janajaga, I

February 23, 1958
Barno Colorado

There have been more "visits" by wild Audubon branch cardinals and can confirm some of the notes above. When it is a pair, that is a visit, the male stays in the trees and utters RCN's while the female comes down to the aviary, takes flight, and utters only one or two RCN's. A wild "muting" acts the same way, even when the female arrives alone, without having any male with him. The captive of wild aviary also responds to the visit by RCN's, while the captive MA usually does not.

Janajaga, I

February 25, 1958
Barno Colorado

Nothing very new today, except that the female started to give some very peculiar RCN's (apparently in response to some call by a nearby flycatcher!). The first note was an RCN, but this was followed by a whistle-like note. Often repeated.
January 1

The last Burin Burin in the aviary began to act again this morning. Just as before, when he was sitting by himself and without inducing any apparent response.

March 30, 1938

Barolo, Colorado

The birds have not been very active this month, until the last few days. The last of my Rufous-vented died off, but I acquired a new Pico Goridos (one unhanded and one handed blue left).

The Pico Goridos has been slightly aggressive for some time, tending to chase and supplant the Burin Burins, and he has become much more so since the two new were introduced. The Pico Goridos have also been quite aggressive. Most of the hostility of both the Pico and the Pico Goridos has been extra specific, but they still tend to show hostility toward the Burin Burins from time to time. They seem to regard the Burin Burins as inferior but not particularly imitating members of their own species.

The commonest form of hostile display of their Pico Goridos is a flap, more or less the same as the reactions described on December 28th. Here are observing all sorts of variations in the flap pattern, and all sorts of variations in the other patterns with which it may be associated — and I have found the whole thing rather difficult to follow — but the following facts seem prob.

The
Janapa, Mar 30, 1955

All the guffle patterns seem to be more or less strongly aggressive. Quite obviously, usually, associated with overt attack, aggressive chases and supplanting attacks. Usually preceding such overt attack—in fact, I am not sure that I have ever seen an overt attack which was not preceded by at least some trace of guffle.

The lowest intense form of guffle is simply fluffing out the breast, belly, and abdomen feathers. This is usually quite quick, the feathers coming in again almost immediately, but usually quite extreme. Particularly conspicuous in the case of the female whose whole yellow underside seems to swell, going particularly far out sideways.

At low intensities, this occurs without any raising of other feathers or any other sign of ritualization. Combined with an unnaturalized "pre-flight" or "pre-forward-movement" posture, with head a neck stretched slightly forward, but not much lowered, to a variable extent.

Other elements are combined with this at higher intensities, and this combination may be slightly different in the two sexes.
As the intensity level increases in the 99 his belly feathers are fluffed more and more; but his head & back are fluffed very little if at all. His head may be lowered a little.

Then, very frequently before attack, or when he is standing face to face with another bird which refuses to retreat, his head may be lowered even more and he assumes a very crouched G. He is then more or less in the posture drawn on the preceding page. This is obviously very, very high intensity, and it is possible that the extreme G-fluff & G-pattern differs from the simpler G-pattern in actual intensity alone (i.e. it may be equally aggressive), but it is also possible that the G is a sign that the attack & escape drives are more nearly equal than they are in the simple G-fluff without G (although attack may still be definitely preponderant).

I don't think that I have ever seen a 99 in G-fluff with his lower body feathers raised to form 2 distinct clumps like the G-pattern I drew on Dec. 28, p. 12.

The 99's behave in much the same way as the apparent intensity increases, fluffing more & more and giving the G; but they seem to be far more prone to fluff the back & head feathers much more. This is sometimes quite extreme, the back feathers being as greatly fluffed as in the drawing on Dec. 28, p. 12, and the whole head looking large & fluffy. They also tend to lower the head into the forward posture like the 99.

(Now - of course - after writing the above - I have seen the 99 go into an F-fluff & G with the back feathers quite definitely fluffed - although still perhaps less so than in the most extreme F-fluffs of 99's.)
The only other hostile display (i.e., really distinctly separate display) which these Pico Jordes are performing now is a CR move or less like the one described a pictured on Dec. 28, p. 13. And this seems to be largely or completely confined to the 02 - as a distinct pattern. He has been doing some CR's which are even more extreme than the one pictured on p. 13, with even more of the blue back of the head showing. These CR's have occurred during the general periods when he has been making numerous attacks and assuming g guff's, etc., but they have not occurred in immediate association with any of the latter patterns. The O2 has assumed these CR's in the intervals between the more obviously aggressive activities. He just stands or sits in an apparently uninvolved, sexually more or less erect posture, and (often repeated) raises or lowers the crown feathers. The circumstances in which most of these CR's occur would certainly seem to confirm the hypothesis that they are less aggressive than any of the typical tuff's patterns, but it should also be noted that they are not associated with overt escape either. (I have seen very few ambiguous performances, combinations of CR with guff's - and the few I have seen were very brief and the guff component was of the lowest intensity type. The two complexes produced appear to be almost completely mutually exclusive in the present circumstances.)

None of the captive Pico Jordes has given any calls or notes during these hostile encounters. This is really quite surprising, and certainly one of the most distinctive characters of the species (and Euphonous in general ??).
The general hostility among the Pico Gordos is continuing as before, but I think I may have to modify some of the remarks I made in my notes the day before yesterday.

I have now seen the 2 Fgfluff pictures, & in which the upper back feathers were extremely ruffled — quite as much as in any of the patterns I have ever seen. This seemed to be very high intensity indeed (although it may still have been relatively less aggressive that Gfluff without ruffling of the back feathers — but I doubt it). I still think, however, that such patterns are not typically accompanied by “real” or extreme CR.

The position of the head & neck during these Gfluff’s seems to be largely dependent on the position of the opponent to which they are directed. The “F” types are characteristic when the opponent is at more or less the same level as the displaying bird. The displaying bird may also, however, lift its head & bill of the opponent is far above, or lower than the opponent is far below.

I have now seen the 2 to extreme DCB (opening of bill very wide) during a Gfluff.

The long continued nature of these hostilities would suggest that this is one of the most aggressive of the species I am studying. It certainly seems to show far more hostility than any of the other Euphonous.
I have now seen the Pico Gordo go into the FGJoff pattern with the crown feathers joint about as raised as they are in simple CR alone. This is really much less conspicuous than simple CR, simply because the raising of the crown feathers is "dwarfed" by the raising of the upper back feathers which also occur at the same time—the net effect of which is to provide a very broad dark frame for the yellow forehead patch.) I am still not sure, however, if this extreme CR is really very common with the FGJoff. And I still think that the FGJoff's with extreme muffling of the upper back feathers (BR) and extreme CR may be somewhat less aggressive than the simple FGJoff's without muffles—although probably higher intensity on the whole.

There was an actual fight between the P. and a ♀ Pico Gordo which seemed to be accompanied by real HAC Rotos!!! (Unfortunately, this took place behind a leaf, so I couldn't actually see what was going on, and can't say anything absolutely definite about the encounter.)

I have twice seen the ♀ face a ♀ and do apparently ritualized OCB at her. In FGJoff pattern, with at least a trace of BR and CR. The OCB itself was quite extensive, but rather slow (probably slower than "comfort" OCB's). In neither case was this immediately followed by attack, so it may not be one of the most aggressive patterns. Probably at least fairly high intensity, however.
This Pico Gordo did a lot of apparently unritualized, but possibly significant BW in the relatively calm intervals between bursts of attacking a gull.

Januara, I

April 19, 1958

Pino Colorado

Nothing much new recently.

Both species have again uttered more WCNW's as all CN's when hawks have flown by.

One of the Pico Gordanos tends to fly to a high perch in the corner of the aviary, sitting by herself, looking out, and uttering single notes from time to time. Each note sounds very much like a single WCNW, but deeper in pitch, more melodic, less whistled-like, and almost linguistically formed.

Not accompanied by any ritualized postures or movements. Looks almost as if she were trying to "call in" a mate!!

The Pico Buri Buri seems to have quite given up singing.

Januara, I

April 23, 1958

Pino Colorado

An Accipiter hawk was around the aviary part of the afternoon, provoking all the Empusææ to give lots of WCNW's. In the case of the Pico Buri Buri, at least, I discerned
that there are definitely 2 distinct morphological types of WhCN's. Both can occur as triplets, but one is much higher pitched than the other. The higher pitched whistles like call sounds higher in intensity than the other (and preceded the more flute-like notes in at least one case).

Jauagga, I
June 30, 1958
Pedro Miguel Tale

There are a lot of Euphomas, both adult and young, flying about - feeding in more or less loose, organized flocks in the tops of Cacopha trees nearby. Apparentlly, both Rio Jordos and BunBuns involved (although I don't know if the BunBuns and Rio Jordos were ever involved in the same flock at the same time). In any case, whichever Euphomas they were very restless - noisy, uttering a lot of rather sharp “Tsit” CN’s and almost as many WhCN’s. The whole flock behavior was quite reminiscent of the flocks of Plain-colored Tanagers.

Jauagga, I
August 10, 1958
Certo Campana

There were a number of Rio Jordos around here, in the woods and scrub-about halfway up the mountain. I didn't get much chance to observe them much, but I did notice the following.

A couple of bunies, possibly disturbed by my presence,
I have had quite a few of the Griegos live for a few days. The yellow feathered one has been well-behaved and a right fly away. They have kept their wings happy in a moderate sized cage, but the smallest and largest are getting on very well.

December 3, 1928
Pueblo, Colorado
unperf. (banded yellow-left) which I kept by itself (or, rather, with a femmer Juvaage, which it quite ignored) for several days.

The young yellow-left. sang and sang and sang while it was in the small cage. In quite untrivialized and un-

cept semi-diagonal patterns. Presumably due to "the wanted singing drive." Certainly not hostile (it showed absolutely no hostility to the femmer Juvaage, and whenever it became alarmed by human be-

ings in the cage it always stopped singing immediately.) The

sang itself was more often a sort of "WS, very loud, and extreme

ly variable. Very difficult to describe. Not unlike

the song of the presumed adult of P. juvaage described above

p. 34, but perhaps a little less peculiar. Without any glee. A

variable quible of full-like notes (apparently many RCN's),

plus a variety of apparently eventually single whistle-like and flute-

like notes, plus what seemed to be some warbled flute-like notes

all sort of run together. Some of the single or flute-like notes were

probably identical with notes I have elsewhere called "RCN's"

(see p. 8 and ff.) and the — note described on p. 34, and

which should probably be called "WCN"'s (see below). I think

that the order of the various types of notes uttered by WS was not

fixed in an definite way. Lacked random (although presum-

ably strictly correlated with various "in relative and actual

strengths of different "types of motivation"

I finally put the young J. in the cage with the two adults

this afternoon. Not a very vivid reaction. The adult J. was moder-

ately aggressive for quite some time, while the adult J. became

n early aggressive every now and then, while the young introd.
squit showed moderate intensity, simple alarm & escape reactions.
The fact that the adult was more aggressive than the adult
was interesting. However, as it illustrates the importance of plum
age color pattern. The q was presumably most initiated be-
cause the general plumage of the young q is like that of a q,
more or less.

The hesitute reactions of the adults included attack pat-
terns, g's and related display elements and a variety of
call notes.

When I first put the young bird in, one of the birds ut-
ted two single RCN's, (I shall continue to call such single
notes "RCN", and change the name of the multiple call. Callingly,
caller, of the Rybous, etc., to "MRCN") I am fairly sure
that these were uttered by the adult q, mating in a quite unlit
unusual posture.

The only other RCN's uttered during this encounter were
given by the adult q, several times when she stood beside the
newcomer in slight g's, moving toward him but not
actually attacking him.

These incidents might suggest that the RCN is either
on the aggresive side or produced when attacks escape
are approximately in balance, but rather low-intensity on the
whole. The q did not utter RCN's when she went into extreme
g's (see below).

The commonest notes throughout this incident were a
lot of loud single notes, which must be I think, what I tend
to call "RCN", and which I shall now call RCN. The sound of
the WCN’s varied considerably. Every waterbird from a rather (but not completely) whistle-like “Whheet,” through fully like “Whreeseo” or “Whreeseoo,” to nasal “Whaanaah” type notes — even in some cases nasal “Whaanaah” notes with a definite sputtering quality. Always eventually single, but frequently repeated at rather short intervals. Bill openings closing with each note, except for some of the “Whaanaah” Notes which were given with the bill absolutely closed.

Almost all these WCN’s were combined with very low intensity, to moderately high intensity, guffaws, given by both the adult ♀ and the adult ♂. Sometimes also combined with attack utterances. The longest a most rapid series of WCN’s was a burst of the “Whaanaah” type given by the ♀ with bill closed. This might indicate that such notes are the highest intensity of all the WCN’s (and even nasal and in sputtering quality might also suggest that they are the most aggressive — although they were not actually combined with overt attack — see below). In general, I think that these WCN’s must be higher intensity than the RCN’s, and probably more aggressive.

The physical form of the guffaw patterns was much the same as I have seen before. Sometimes quite extreme, with BR and CR (and “double” swelling of breast & belly feathers in some cases, in the adult ♀ as well as the adult ♂). Sometimes combined with a low-forward position of the head, sometimes assumed while the bird was sitting more or less upright in a semi-diagonal posture. I did notice one thing new, however. This was a form of “crouching” (♀). I think that every guffaw lay both the ♀
This afternoon was accompanied by quite simple fly-in movements. The body turned diagonally, first one way, then the other. So, a:

1 2 3 4 etc. etc.

No apparent leg movements of any sort. Tail, body, and head always kept in straight line, i.e., no looping from side to side, bending neck, as in Aropus vented.

One thing about these Gshuff patterns cannot be stressed too strongly. Although lots of low- to moderate-intensity was accompanied by MCN's (and some ordinary CN's - see below), the really exciting Gshuff's, with real attack movements, were apparently always silent!! (Not even with G for that matter.)

I only heard one little burst of the call I have been terming "MCN" and "WBA" (which I shall call "MWCN" from now on). This was a brief 2-note call by the adult at one time, when he didn't seem to be too excited. Perhaps in wake of Gshuff, but making no attempt to attack or advance upon the newcomer.

All three birds uttered a lot of ordinary CN's throughout the afternoon. I think that these might best be described as very soft "Whits." Frequently uttered in little bursts, or series, rather like the CN's and related notes of the Marlin-colored and golden-marked Janagae, in fact. Some of the CN's of the males were certainly combined with low Gshuff's, but this was presumably just an ambivalent behavior of a roost. All three birds always gave CN's when they flew, and the CN of this species seems to be more a locomotory call rather than a truly locust pattern.
The quinquelet stopped singing immediately as soon as he was put into the aviary with the others.

I have had a pair of White-vented for some time now but haven't been paying too much attention to them.

They do have ordinary CN's. A single CN might be transcribed as 'Trir', like the CN's of related species. Essentially single notes and doublets, although often repeated in long series, to give the 'tittering' effect described on Dec. 9 of last year, p. 10. This is the only CN-like or CN-type call these birds have uttered since I got them.

The 2 sing constantly when he is separated from the t, and always slits up when she rejoins him. (He apparently never tries to join her when he is singing.) This seemed to be a WS of the usual "Euphonia" type. Like that of other small species, it seemed to be rather formless, a moderately loud, rather pleasant, warble—rather fast and difficult to analyze into its component parts (if any). Not un-Gold-finch-like. I have only been able to distinguish 2 slightly differentiated parts, aside from the main warble. Many warbling phrases are not produced by one or two more distinct, sharper, CN-like notes. And once I heard the t give a quite clear RCN Note in the middle of a warbling phrase. (This is the only time I have heard either bird give anything at all like an RCN.) The t gives this WS from an apparently quite upright, semi-erect, semi-diagonal sitting posture, with the lower body feathers quill slightly fluffed.