

Atlapetes, I

September 19, 1958  
Cerro Punta

~~Atlapetes~~ = gutturales - Yellow-throated Bush-finch.

These birds are quite common around here. Single, or in pairs, or trios (probably adults with young). In undergrowth usually, but sometimes come out in open to feed on ground or sit on exposed perches. Less skulking than I expected.

They also seem to join the mixed flocks of Bush-tanagers & warblers - at least temporarily.

They are quite Arenarops-like in general effect, but rather slenderer, less round-bodied.

They do TF's of the usual type, quite like Arenarops but very little or (less probably) nothing in the way of WF's.

The only sound I have ever heard them make is a soft "Tuck", obviously a CN, frequently repeated.

I have caught one bird in the net and put it into a cage. Quite silent throughout.

~~Atlapetes~~ = brunnei-nucha - Chestnut-capped Bush-finch.

These birds seem to be moderately common a little further down the mountain. They are very definitely extremely skulking. I have seen none this morning - until one appeared in the net!

I put this bird in the cage, and it was quite silent throughout the period it was handled.

Atlapetes, I

September 21, 1958

Cerro Punta

I got another Yellow-throat in the net this morning. Again quite silent when handled.

Surprisingly enough, mates of this species do not seem to give any sort of vocalization when they join or rejoin one another. Quite unlike the Green-backed Sparrows or Yellow-throated Finches.

Atlapetes, I

March 3, 1959

Cerro Punta

Yellow-throats around now, much as last year. Singing or in pairs in the same edges as the Yellow-throated Finches. Possibly actually following or being followed by the Yellow-throated Finches — although I can't be sure about this.

As usual, the Yellow-throats are quite remarkably silent, on the whole. I am not sure that I have even heard one of them utter a single CN yet this trip.

I think I have probably heard "song" however. One bird of a pair I disturbed. When I first got a clear view of this bird, it was sitting with a piece of n.m. in its bill, a couple of feet away from its mate. Then, I think it uttered a soft warble, followed immediately by a soft trill, before it hopped toward its mate and dropped the n.m. Later on, I think that the same bird uttered a long series of accelerated notes, quite like the "R Song" of the Green-backed Sparrow, but

Atlapetes, Mar. 3, 1959, II

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very much softer, while it was looking at me rather nervously. It is possible - I suppose - that the "warble" followed by "tut" I heard earlier may have been something of the same sort.

Both these vocalizations seemed to be given from perfectly unimpaired sitting postures.

Atlapetes, I

March 6, 1959

Cerro Punta

We got a very good view of a chestnut-capped Bush-finch singing this morning. Couldn't see what started it off. When we did see the bird, it was sitting in a low bush, about 1 or 2 ft off the ground, singing apparently by itself. The song itself was a long, rather soft, whistled phrase. The phrases were repeated again & again for at least a minute, possibly more. They were also quite variable. A "typical" phrase may have been more or less comme ça.

"Tut tut tut - teese tut - teese teese"

I think that the number of introductory "Tut"s varied from time to time, and it is possible that one or two were occasionally inserted later in the phrase. I also think that the number of doublets, "tut-teese" was somewhat variable, some phrases perhaps including 3.

In any case, the main part of the phrase apparently always consisted of doublets. And all the phrases ended with a single "teese".

This song was given while the bird sat in an ordinary sitting posture - with crest very much raised (CR), and throat feathers at least moderately fluffed.

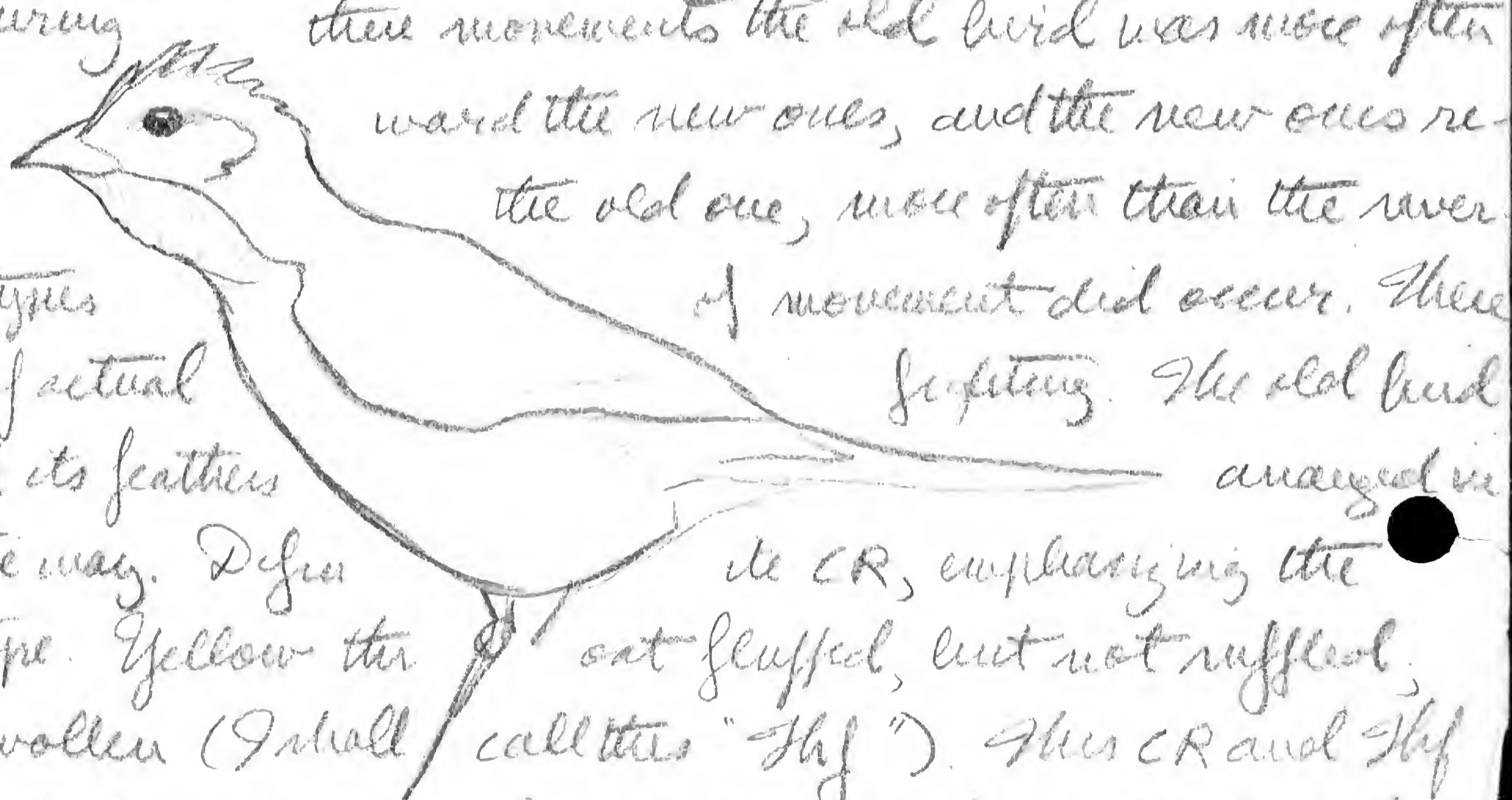
The bird just disappeared from view after it stopped singing.

Atlapetes, I

March 12, 1957  
Barro Colorado

I caught 2 Yellow-throated Atlapetes in my nets at Cerro Punta before leaving. Like so many other species there, they were quite silent when handled.

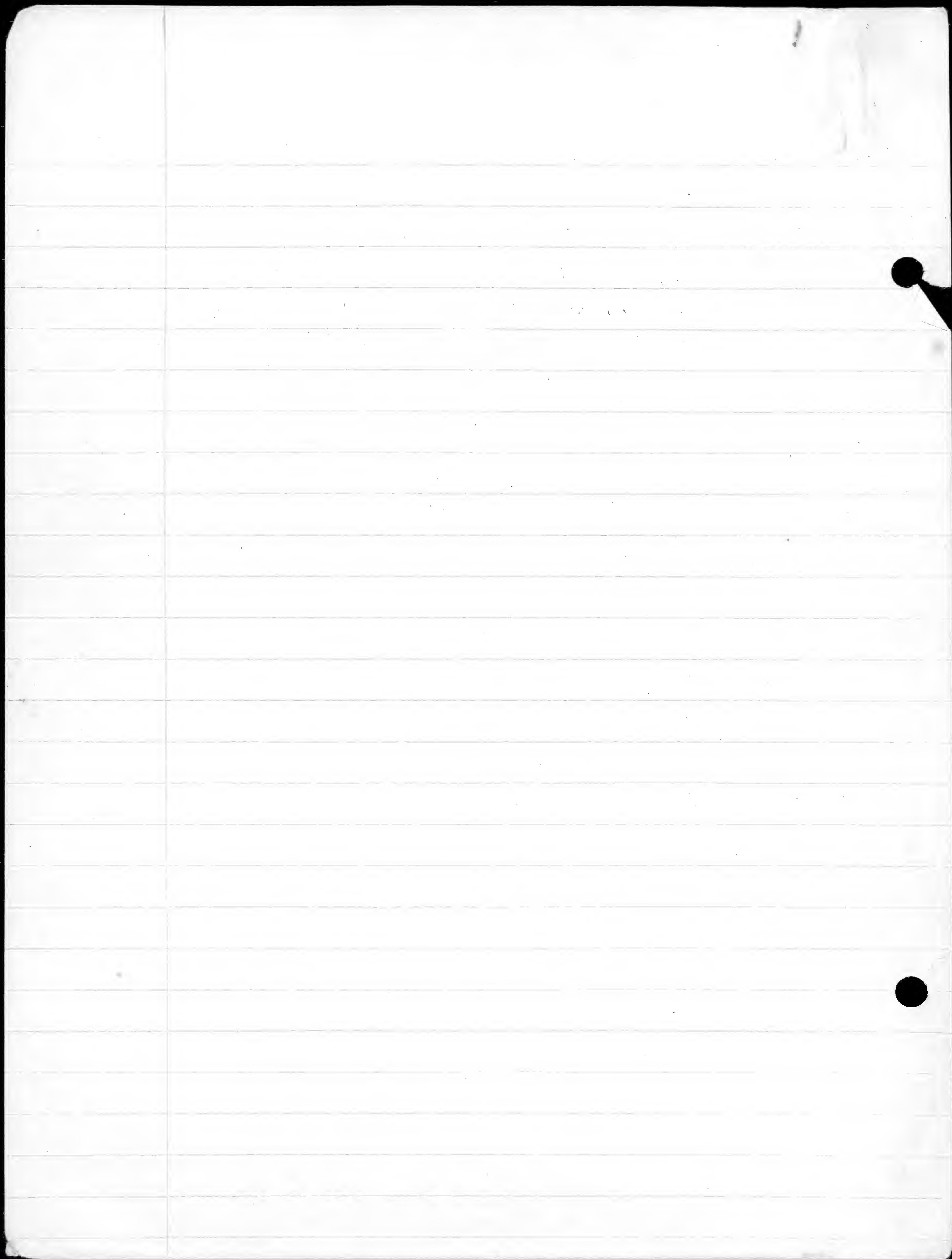
When I brought them here, we banded them (1 blue and 1 red), and let them loose in the cage with the one surviving Yellowthroat from my previous trip to Cerro Punta. I think that one or both of the new birds uttered a couple of single, rather liquid-sounding "chirp" notes when first released. After that I only watched them for about 5 minutes (as I wanted to let them settle down in peace). During this period there was a lot of active hopping & flying back & forth by all 3 birds; but they were all quite silent throughout. Silence is obviously one of the most distinctive characters of Atlapetes. I think that during these movements the old bird was more often advancing toward the new ones, and the new ones retreating toward the old one, more often than the reverse. There were no signs of actual fighting. The old bird often stood with its feathers arranged in a rather distinctive way. Definite CR, emphasizing the white crown stripe. Yellow throat just looking swollen (I shall call this "Thf"). This CR and Thf is very reminiscent of brunnei-nucha, but much less extreme. The old bird combined its CR and Thf with a variety of postures: standing high, crouching low and forward, etc. etc. All sorts of obvious



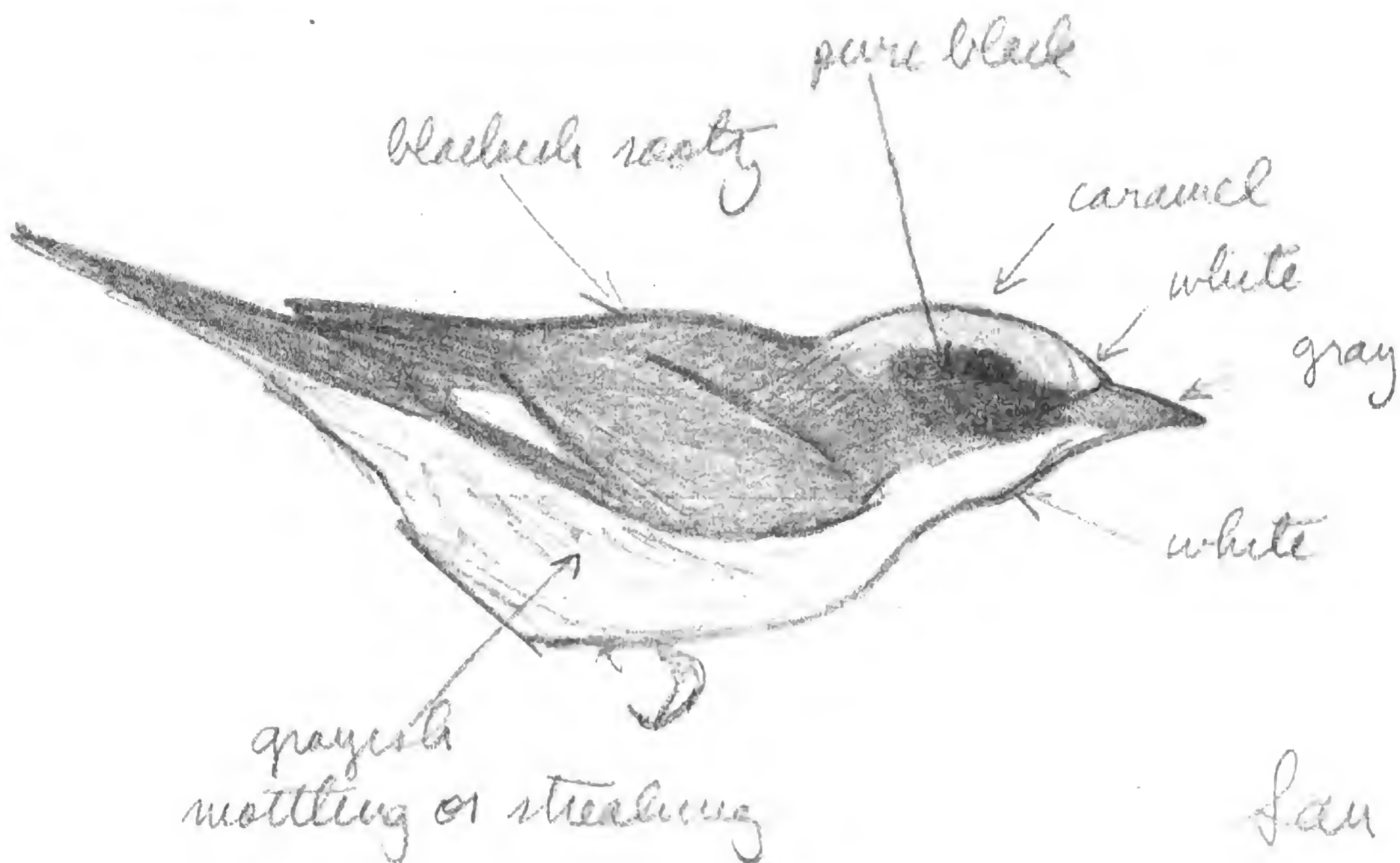
Atlapetes, Mar. 12, 1959, I

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only unritualized "pre-flight" postures. Sometimes accompanied by G,  
but this was never very extreme, and I don't know if it was ritual-  
ized or not.



~~Atlapetes~~ = leucopterus



San Antonio

Ca. de Quito

Afternoon, August 4, 1959

We came across a small flock (at least 4 or 5) of these birds, in the brush along a small river in the arid temperate zone.

Very active and restless birds. As far as I could tell (and I never got too overwhelmingly good a view of the birds), they moved about just like the Chlorospingus at Chiriqui.

The most distinctive feature of these birds, if they really were a species of Chlorospingus, was their comparative silence. They gave a lot of "Tut" CN's when just moving about in the bushes, and accelerated bursts of at least 5 or 6 rapid "Tut" CN's when flying between adjacent bushes (these accelerated series were far too slow, however, to be called an "R" of any sort), but all these "Tut"s were relatively soft.

When we first came across these birds, they were feeding on the ground and low in some trees (willows) near some shrubs and some individuals of a Couirostrum species. When the whole group

Atlapetes, Aug. 4, 1959, II

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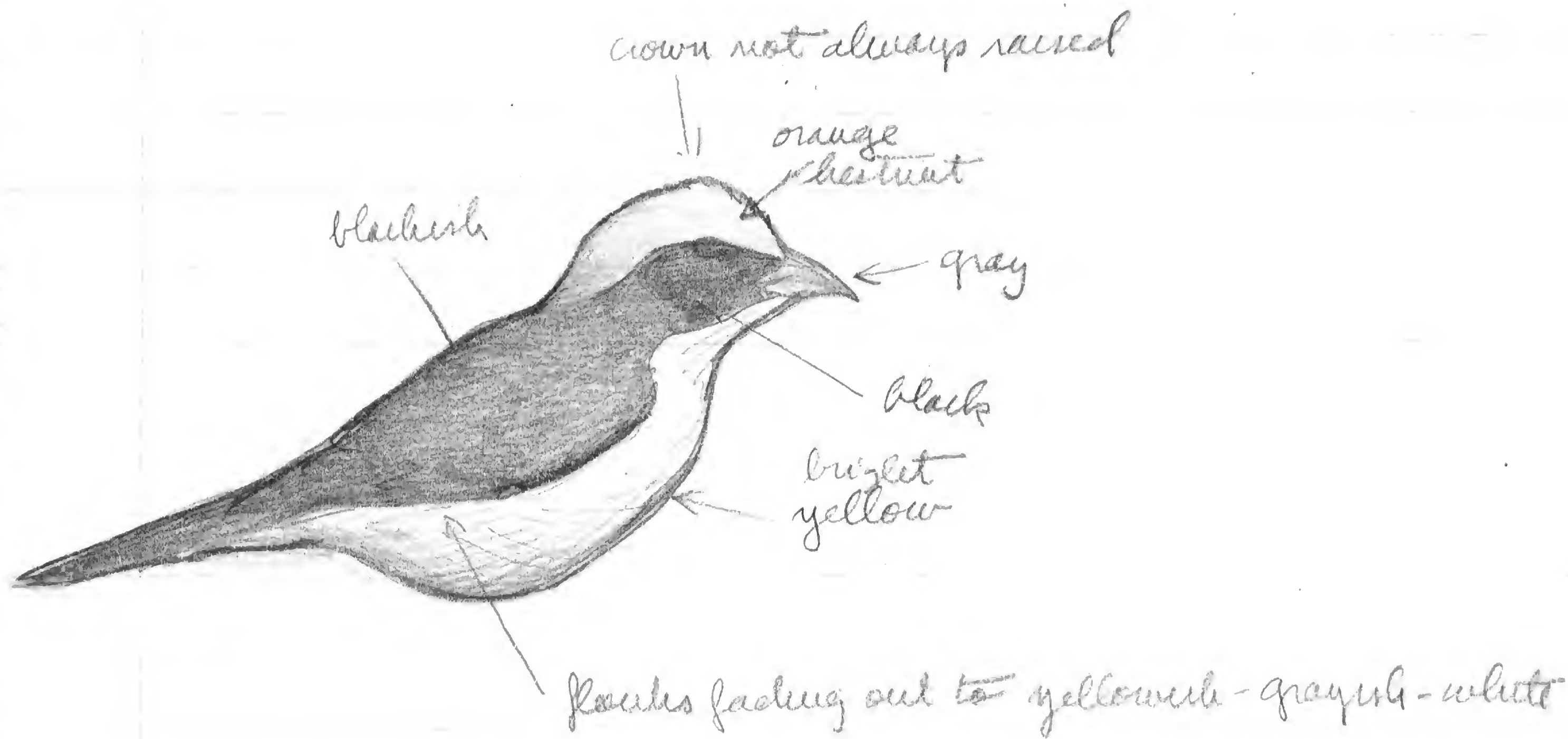
was disturbed by our approach, however, the presumed Bush-tanagers reappeared. Later in the afternoon, I saw a Chircol in the same bush as the presumed Bush-tanagers; but I don't know if this was anything more than coincidence or not.

Atlapetes I

August 5, 1959

~~Atlapetes~~ = rufinucha

Cerro Pukincha



This afternoon, on Pukincha, in the humid paramo zone, in a hedge along a road side (i.e. in vegetation which may really be characteristic of the upper humid temperate zone) I came across a small group of at least 3 birds of new species of Chlorospingus or Atlapetes or something very similar.

Moving about quite like the "Chlorospingus" I saw yesterday, also relatively silent; although one of the birds probably uttered a few soft, rather buzzy, single "Dzucht" notes as it moved through the bushes (it



Atlapetes, Aug. 5, 1959, II,

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generally kept low in the bushes, seldom or never more than a couple of feet off the ground).

I was only able to see one bird well for a couple of minutes. Part of this time, it kept the top of its head absolutely smoothed down flat, but once it did a little CR quite like that of Atlapetes.

Atlapetes, I

August 7, 1959

Cerro Atacasa

This morning we arrived at dawn up in the paramo, at a place where bushy vegetation (characteristic of the humid temperate zone?) extended up a valley into the grassy slopes. When we first arrived, there were some 2 or 3 of the rufous-capped, yellow-throated, chloroceryle-like birds, munging from perches in the scrubbery.

I was only able to see one bird munging, and this was under rather unfavorable conditions, but his munging posture seemed to be comme ça:



Quite fluffed.  
Wings slightly drooped

The songs themselves were quite highly variable consisting of clear whistled notes and rattles, usually or always preceded by a sharp CN-like note. Some of the songs I heard might be represented by the following diagrams & transcriptions:  
"chip chee Fee Fee" or "chip chee Fee Fee" or

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"chip chee mmmm" or "chip chee wheoo" or

"chip feeo feeo mmmm"

All this was quite reminiscent of the SR type songs of the Brown-capped Bush-tanager, and even more reminiscent of the vocal repertoire of the forked-billed Bush-tanager, insofar as the R element seems to be only loosely connected with the more musical song part.

Surprisingly enough, the singing birds all stopped and disappeared by a few minutes after dawn, and I didn't observe any more trace of them during the rest of the morning.

Atlapetes, I

August 9, 1959

Cerro Picachuca

Watching several small parties of this yellow-bellied species moving through bushy "hedges" near the top of the humid temperate zone here. Very noisy, active and restless. Some, at least, of these small parties were family groups, adults with fully grown young.

The birds were rather silent, except for the fact that they uttered rather weak "Til" CN's nearly constantly, most of the time, both when actually moving or flying and when perched ready to move.

A couple of times this morning there were sudden outbursts of more elaborate vocalizations in one or more of the parties. I couldn't tell what provoked these outbursts. It is possible that all or most of these elaborate vocalizations were being used as "greeting" when one member of a family caught up with another. These elaborate vocalizations contained most of the same elements as the "ordinary song" described above on Aug 7, but

Atlapetes, Aug 7, 1957, II

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somewhat differently arranged, with some additions. The typical form of these elaborate "greeting vocalizations" (as I shall call them for the time being, although I don't actually know what their function was) might be represented as follows: "Tuk tuk tuk tuk tuk tuk. ~~MMMMMMMM~~ wheeooo wheeooo wheeooo wheeooo wheeooo."

Later I heard a bird apparently singing by itself. It gave some phrases just like those described on Aug. 7, also some phrases just like the "greeting vocalizations" described immediately above, and also a great number of pure Rattles by themselves alone!!

Atlapetes, I.

March 20, 1960  
Cerro Punta

Have been watching Yellow-breasted Parula finches here, in the usual places. Behaving much as in previous years. Shuffling and silent.

Watching one pair particularly closely, around 7000 feet. Call this pair A. Moving about in the shrubbery. But comparatively tame, and so occasionally coming to the tops of bushes. Every once in a while, one bird would be left alone on a top of a bush when its mate left it behind. Such a bird tended to sit there for at least a few seconds, looking more or less alert (occasionally adopting a pre-flight posture, with flap, like the one drawn on p. 4.), doing occasional TF's (with very little WF, as usual), and uttering a lot of single CN's! These CN's are thin, and apparently soft, but quite remarkably penetrating. I would now transcribe them as "Trit" (rather than "Tuck" as on p. 1.). One bird, probably the ♀, when left al

Atlapetes, Mar. 20, 1960, II.

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one for a comparatively long period, uttered a few single, noticeably longer "Tseeest" Notes intermingled with ordinary CN's, before flying off, presumably to join its mate. These long "Tseeest" Notes were presumably produced by throating of something like a pairing drive. I shall call them "ECN's." I think that once, when one bird was left alone (possibly the ♂?), it uttered a few CN's and then a long, thin, soft, warbling "song", rather like a muffled & particularly soft version of the "song" of the Yellow-thighed Finch.

Both the CN's and ECN's are certainly usually uttered with the bill closed, although the bill is opened & closed occasionally with either one or both types of notes. If our bird did utter a "song" today, this was also done with the bill closed throughout.

Atlapetes, I.

March 22, 1960  
Cerro Punta

Saw an apparent pair of Yellow-throats sitting exposed on a top of a bush. A third bird appeared, and one of the pair flew at it and chased it away. This appeared to be purely hostile. And apparently purely silent! The two birds involved in the chase disappeared, and the remaining bird (the ♀ of the pair?) remained sitting for several seconds and uttered a whole series of ECN's (single but quite rapidly repeated).

This afternoon we saw a little more ECN behavior, in 2 pairs.

In the case of one pair, one bird flew across the road and into a thicket on one side of a field, and then began to utter ECN's in moderate rapidity.

Atlapetes, Mar. 22, 1960, II.

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It was immediately answered by another bird, presumably its mate, from the opposite side of the field. This other bird also uttered ECN's, in more or less the same rhythm. Then this other bird gradually crossed the field, flying from back to back in the field, continuing to utter ECN's until it was halfway across. When the 2 birds finally got together, we did not hear any sort of vocal greeting or song (unfortunately, we could not hear them as they were hidden in the shrubbery)

for both sexes can utter ECN's.

Later on, we saw another pair fly across the road, one bird well ahead of the other. The front bird uttered 3 ECN's in flight, in a rhythm course for: — — —

I am beginning to think that atlapetes (i.e. the two species here) may be quite closely related to Pullichlorus. The use of ECN's by a Yellow-throat separated from its mate is rather reminiscent of the "Whee-whee whee..." notes uttered by the isolated Yellow-throat I watched on March 3, 1959 (III, p. 7 of the notes on Pullichlorus).

I am also beginning to think that this species may really have lost all trace of a song pattern, or, at least, has a greatly reduced song complex. Possibly because the members of a pair stick together all year round. (It may also be significant that the Yellow-throat seems to be a follower rather than a leader in mixed flocks.)

Atlapetes, I.

March 23, 1960  
Cerro Punta

Recently, we have been paying particular attention to 1 pair, fairly low down on the mountain, on the upper edge of the llanos. Call this pair "B". There are also probably several other pairs we

territories adjoining that of pair B, (we know there is at least one other bird who occasionally meets pair B).

The B's are probably in fairly advanced breeding condition. Since we have seen one of the B birds carrying n.m.

Every time we flush the B birds, one or both flies away uttering ECN's. I am now fairly certain that the ECN's of this species are generalized frustration reactions — presumably of at least moderate intensity — rather than always the result of thwarted pairing or sexual motivation. At least some ECN's seem to be rather high intensity alarm reactions. One bird I disturbed today stayed in a tree about a few feet from me, hopping about very excitedly (but keeping fairly close to me almost all the time), performing lots of TF's (and WF's), with CR (and probably some slight Jlf), and uttered lots & lots of typical ECN's, one right after the other in fairly rapid succession. The bill opened & closed with each ECN (revealing the rose-red inside the mouth quite conspicuously). Eventually this alarmed bird flew away to join its mate — without performing anything else in the way of display.

Several other times, when we disturbed pair B and/or their neighbors, in deep thickets where they were impossible to see adequately, the disturbed birds responded by uttering lots of ECN's and — almost certainly — uttering a series of "song" phrases. These were quite variable; but some of them might be transcribed by something like: "Tree Tree Tree-whoohoo" or

"Tree Tree Tree-whoohoo" or

"Tree Tree Tree Tree Whoohoo"

We never actually saw a Yellow-throat utter such song phrases.

Atlapetes, Mar. 23, 1960, II

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but I am quite sure that these phrases were really being uttered by Yellow-throats. For 2 reasons. 1. The initial "Tee"s of the song phrases are almost identical with typical ECN's. 2. We only heard these song phrases when we knew Yellow-throats were quite close by.

Once I heard a burst of song when I thought there was a dispute between a pair and one or more of its neighbors in progress.

It seems likely, therefore, that some or all of the songs of this species are largely or completely hostile.

All the songs are comparatively soft and very thin-sounding — and quite remarkably neutriloquial, in the sense of being very difficult to locate precisely.

We went back to study pair B again this afternoon. I sat more or less obscured in the middle of a hedge, while David "dove" the pair past me 4 or 5 times. They never uttered anything except ECN's as they went past me — except once. (It is probably not surprising that they uttered almost nothing but ECN's this afternoon. It was the worst time of the day, and the pair was more or less associated with mixed feeding flocks most of the times they were near me.) The one exception was rather interesting. I suddenly became aware that the pair were uttering ECN's just behind me. I turned around to look at them. Just as I turned, one of the birds uttered an unmistakable brief R! I rather think that this must have been at least partly hostile. It is possible, however, that the birds had not recognized exactly what I was until I turned around completely. So this R may have been less strongly hostile, or lower intensity, than the song we heard this morning.

We only heard the song once this afternoon. This was when we

came upon the pair rather suddenly near their nest site. One of them uttered a single song phrase just as it flew away. One might expect the birds to be most strongly hostile near their nest-site.

I am now quite certain that this type of song is being uttered by these birds. I shouldn't be surprised, however, if they uttered other types as well.

It is also quite evident now that the Yellow-throats habitually follow or join the mixed flocks. They are seldom or never the leaders of such flocks, but they are more than just casual associates.

I have been struck this year by the similarities in general behavior between the Yellow-throated and Yellow-thighed Bush Finches. The Yellow-throats also occasionally go high into trees, and "flop" up & down vines & bushes, in almost exactly the same way as the Yellow-thighs, although relatively less frequently.

In both these respects, the Yellow-throats are quite different from the Chestnut-capped Bush Finches. I have never seen a Chestnut-cap with a mixed flock - not even associated with Yellow-throats. And the Chestnut-caps always remain on or close to the ground. They are far more skulking than the Yellow-throats.

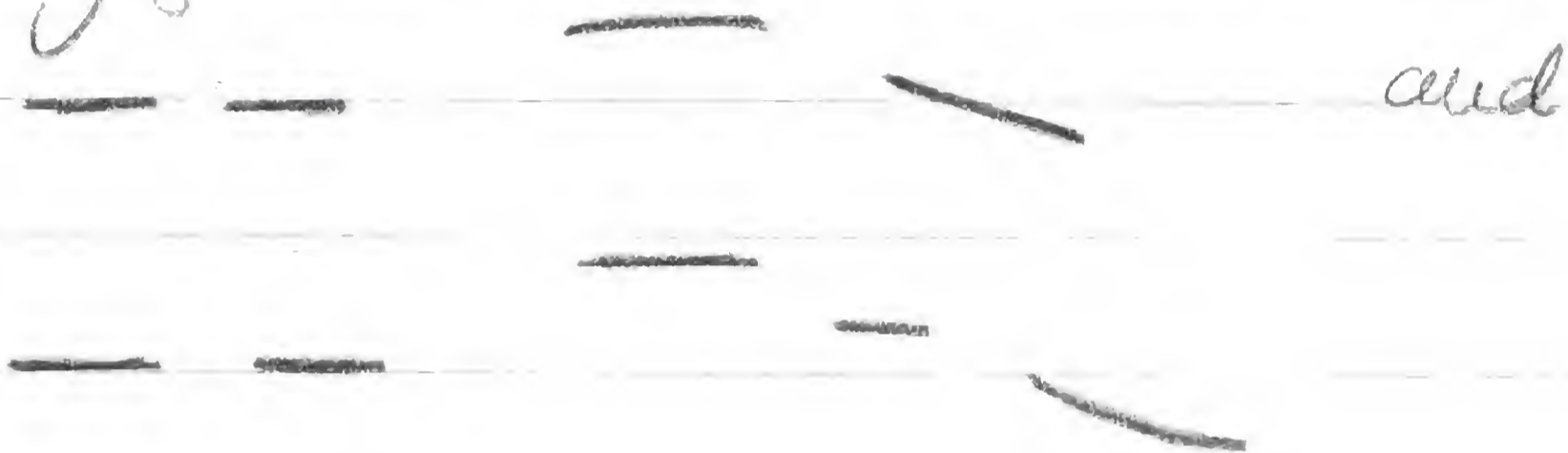
A pair of Chestnut Caps passed by me when I was hidden in the thicket feeding quite leisurely on the ground. Undisturbed or unaware of my presence all the time they were feeding they uttered nearly constant soft, thin, single "Tzee"s. Even thinner and softer than the ECN's of the Yellow-throats. Presumably "contact notes." They were not accompanied by the slightest trace of yernal ritualized postures or movements. No trace of either CR or Hf.



Atlapetes, I.

March 24, 1960  
Cerro Punta

Just below the big bend of the road below Cerro Punta we came across an Atlapetes uttering ECN's and singing in a bush. Around 4:00 p.m. Some of these songs were essentially the same as those I heard yesterday further down the mountain. I.E.



With a very thin "Eeee..." quality.

We could not see the singing bird very well, so I crept around the bush - only to perceive 2 Yellow-throats and 2 Chestnut-capped !! I am sure that it was the Yellow-throat who was giving the song above.

As I came upon the birds, however, some one suddenly uttered some song phrases which seemed to be rather different. Stronger and more whistling. Less of the "Eeee..." quality. David says that the notes & pitch were like this:



It is possible that the latter phrases were uttered by one of the chestnut-capped birds

Atlapetes, I.

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March 26, 1960  
Cerro Punta

We disturbed the pair of Yellow-throats near the upper part  
we this morning. They then stayed hopping around in nearby bushes for sev-  
eral minutes. Absolutely no trace of song. They uttered CN's & ECN's when  
they were near us (i.e. when they were alarmed) and only CN's when they  
were farther away from us.

The ♂ and ♀ often became separated from one another during their  
hopping. There was certainly no trace of any "greeting" by either bird  
when they came together again. This is certainly a big difference from  
Pulicopterus.

I am now quite certain, from my observations of many birds,  
that the CR and Shf of this species are indications of either alarm or hos-  
tility in general.

A "nervous" Yellow-throat is very apt to perform "intention  
movement of slight bowing." Bird stands with neck stretched up-  
ward, then abruptly lowers it so that the neck stretches straight forward  
(or even forward & downward, then upward again, then forward again.  
This may be very rigid & regular, and quite ritualized looking. It  
may actually function as a signal. (Similar movements are per-  
formed by many other Bush-finch. This afternoon, for instance,  
we watched a single Peropetes behave in exactly the same way in  
similar circumstances.)

Atlapetes, I

March 28, 1960

Cerro Punta

We were walking along the road, near the great bend, very close to the spot where we heard the Atlapetes song on Mar. 24, 1960, when we suddenly heard a song from a bird hidden in a bush. I recognized this as an Atlapetes song at once — and also as the song of a Chestnut-capped rather than a Yellow-throat. When we finally saw the bird, it turned out to be a Chestnut-capped, as expected. So we must be getting pretty expert in recognizing the songs of the species.

I am fairly certain that, when we first heard the bird (probably when we first disturbed it), it uttered a few song phrases which were organized in almost or exactly the same way as the commonest songs of the Yellow-throats.

—  
tuh tuh - teeeeeee tuh tuh

Immediately after this, the songs became extremely variable. There did, however, seem to be one "basic" phrase. Which might perhaps be represented by the following diagram.



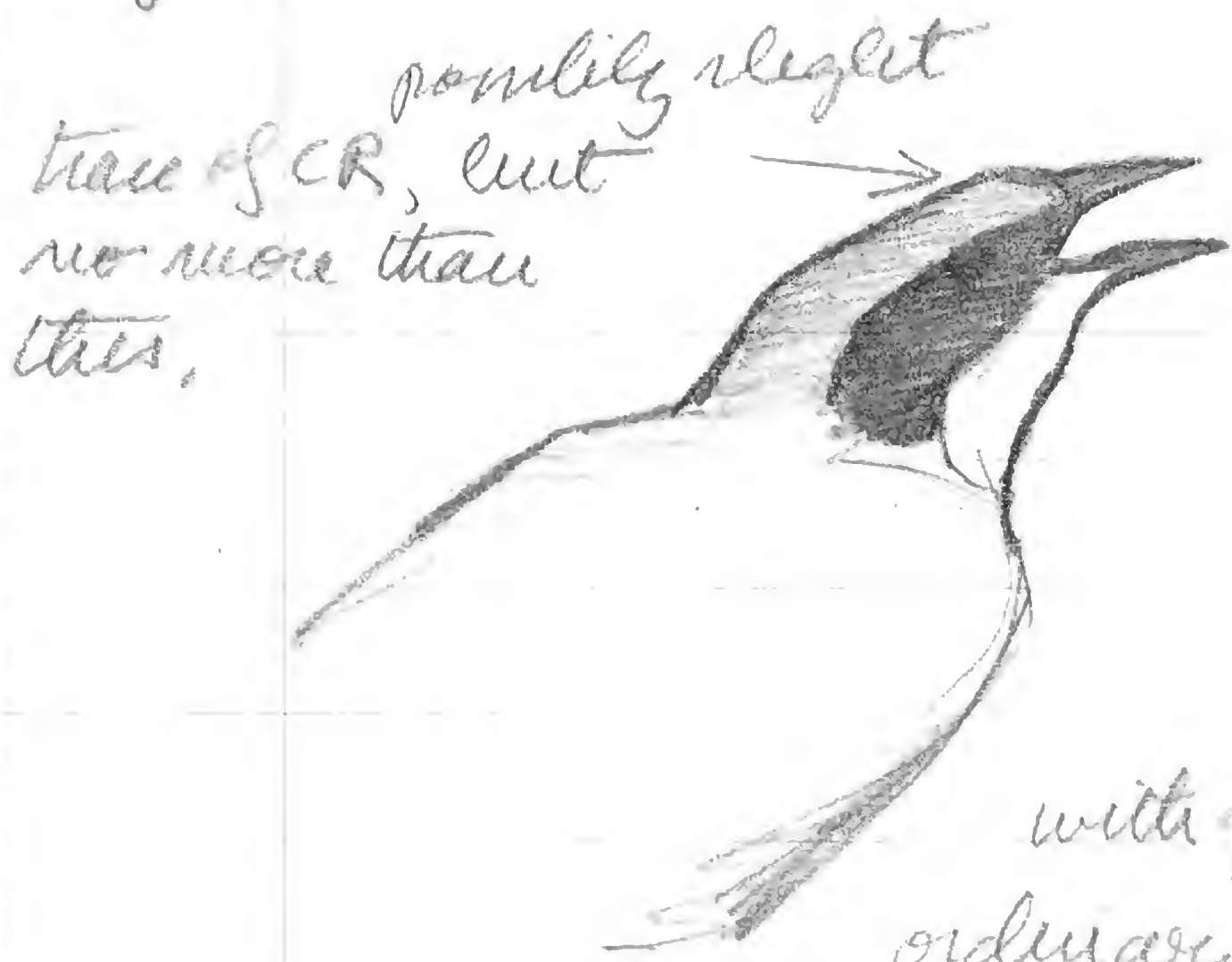
David would transcribe this as: "whie he whie he heeeeeeeuu"  
I think perhaps I would transcribe it as "tut tee tut tee teeeeeee"  
If so, it would appear to be identical with the song described above on

Mar. 6, 1959, p. 3! Most of these basic phrases had a little terminal bit added. Sometimes just a single "be" or "tee" note. Sometimes a partial duplication of the end of the basic phrase, i.e. "be beeeeee eee" or "tee teeeeee" Perhaps

Sometimes a brief triple note which David would transcribe as "titawheeeeee" ("tuh-ta-teeeeee"?) More often a double "tit wheeeeee" ("tuh-teeeeee"?) (The latter double note was sometimes also uttered independently, apart from the basic phrase.) David is fairly sure that all the songs, at least those ending with a fairly long note tended to become lower in pitch at the end. I.E. the last note tended to become lower in pitch at the end.

All these songs were definitely stronger and more whistling than the songs of the Yellow-throats.

I only saw the bird actually singing once. Setting with head & bill pointed diagonally upward, but with little or no CR or Mj



These songs were also intermingled with quite a lot of CR's. Apparently perfectly ordinary CR's. More or less "Trit"s.

Atlapetes, Mar. 28, 1960, III.

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It is interesting that neither the Chestnut-capped nor the Yellow-throated Atlapetes perform "greeting" songs when one male joins the other. In this respect, the rufigula birds described above on Aug. 9, 1959, p. 9, may be intermediate between the Atlapetes sp. here and Pelliopterus — just as they seem to be intermediate between Atlapetes and Chlorospingus in some other respects.

Atlapetes, I.

March 30, 1960  
Cerro Punta

We caught two Yellow-throats in the nets this morning. Both quite silent, although they struggled vigorously and tried to bite.

It might be supposed that the absence of HAC in such circumstances, which seems to be characteristic of all bush-finch and bush-tanager except Aucosora, was simply correlated with their gregarious habits, i.e. these birds might not be able to use a high intensity aggressive pattern were it not for the fact that the Chestnut-capped Atlapetes (and presumably the Orange-billed Sparrow) are also quite silent when handled in the net.

March 31, 1960  
Cerro Punta

We caught another pair of Yellow-throats in the nets this morning. Both quite silent when handled, as usual. One of the birds, however, (probably the ♂), performed repeated Gaping in my hand after I got him out of the net. The bill opening (quite widely) and closing, repeatedly, in a moderately fast rhythm. Accompanied by CR. This ga

Atlapetes, Mar. 31, 1960, II

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looked almost like "panting", but the bird had certainly not been struggling enough to cause such prolonged and vigorous panting. So I think that it must have been a ritualized pattern. Perhaps the equivalent of the HAC of most tanagers. (Perhaps correlated with the fact that the members of a pair always stick very close to one another and separate pairs usually stay far apart.)

We caught the second bird (presumably the ♀) sometime after catching the first. When we put the second bird into a paper bag with the first, there was a sudden burst of moderately soft, twittering, "formless", warbling song from the bag. Quite reminiscent of the Yellow-throats!! Another indication that Atlapetes and Pelliopterus are related.

I also caught a Chestnut Capped (briefly, before it got away). It was also quite silent when handled.

Atlapetes, I.

May 21, 1960  
Cerro Pichincha

This morning we watched a single rufinucha sitting high on a bare twig at the top of a tall tree, singing repeatedly. Presumably ♂.

His songs were most distinctive. A single phrase, very frequently repeated at intervals of a few minutes or seconds. All his songs this morning were essentially identical, but quite different from any songs I have heard from this species before. A single phrase might be represented as follows:

Chesoo Chesoo      Chesoo chuk chuk

— — — — —

Atlapetes, May 21, 1960, II.

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Many of this bird's song phrases were alternated with preening. Quite vigorous and autoclathrous-looking. During the song phrases themselves the bird sat in a very fluffed posture which may have been an "intention movement" of preening.



Only moderate CR.

None of these songs  
any other bird. The singing  
away (perhaps frightened by us)

seemed to provoke any response from  
bird eventually gave up and flew

Atlapetes, I

May 25, 1960

Cerro Patulula

The infundibula birds were a good deal more conspicuous & noisy here today than on May 21st. Advancing into reproductive condition?

The most interesting incident today was seen only by David. One bird landed beside another, presumably its mate (as there was no overt hostility between the 2 birds). One of the birds uttered some sort of "greeting song". David transcribes this as "zee wee zee wee" (Probably including 4 to 6 notes.) David describes this greeting song as a warbling whistle, very rapid (so much so that it almost ap

Atlapetes, May 25, 1960, II.

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produced a rattle in rhythm).

Later in the morning, David observed one bird, apparently all by itself, utter a series of "rapid, loud, harsh" notes — which were almost certainly closely related to, or identical with, the notes I have transcribed as "cheeo" or "jeeo" on preceding pages.

Still later, we heard one bird utter another distinctive type of "song". (We couldn't actually see the bird when it uttered this vocalization, as it was hidden deep in a bush, but it flew out of the bush a few seconds later — followed by its mate.) This "song" began with 3 "Dzoo-wee" notes, which were followed by an obscure warbling bit, which was followed, in turn, by a Rattle.

I must say that I am greatly impressed by the great variety of vocalizations of this species!

In mid-morning, we heard another burst of peculiar sounds which were probably uttered by this Atlapetes. Coming from deep inside a tall thicket. A whole burst of harsh notes. Uttered singly, or in doublets, or in triplets, or in quadruplets. — or — — or — — or — — — Each one of these notes might be transcribed by something like "Wauh" or "Dauh". They all or almost all had a pronounced rattle undertone. They were quite reminiscent of the HAC Notes of many other species, but rather more mechanical sounding. They were occasionally interspersed with "cheeo" or "jeeo" whistles.

David saw an Atlapetes moving about in the bush when these sounds were being uttered, and the sounds seemed to move down the bush as the bird moved. Then the bird flew out of the bush and away. David said that he is almost certain it was a rufous. It looked comparatively pale and grayish underneath, but did seem to have (at least) a yellow throat.



Atlapetes, May 25, 1960, III.

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After this bird left, there was at least one, and possibly two, birds left in the bush who continued to utter a few of the HAC-type notes and "Teeoo" or "Cheeso" notes.

It is possible, therefore, that this incident was a territorial boundary dispute between neighboring refinuchas.

Atlapetes, I

May 26, 1960  
Cerro Atacaso

We arrived at the usual place here just at dawn, before sunrise. At that time, there was a simply terrific dawn chorus of Yellow bellies in progress. A bird singing every 10 or 20 yards. Usually moderately low in tall bushes or at the top of low bushes (it may be significant, in this connection, that it was very windy this morning).

I was only able to see one bird singing. It was in a posture comme ça



Wing quite raised.

I couldn't see the wings very well, but they certainly weren't drooped very conspicuously.

The bird didn't seem to be very flushed either.

All the songs uttered by all the birds were remarkably standardized. A typical song phrase might be represented as follows: "Chip Cheeso-cheeso-cheeso mmmmm". The pitch of a typical

Atlapetes, May 20, 1960, II

(25)

phrase was quite distinctive.

— — — — —  
"chip" "cheeo"s Rattle

The only variations in this phrase seemed to be relatively rare. The most common was omission of the terminal rattle. In a few cases, the song phrase was introduced by 2 preliminary "chip"s instead of 1. (A typical song phrase with 2 introductory notes and no rattle is presumably what the bird we watched on Pichincha on May 21 - see p. 21 - was uttering.) It is possible that some songs included an extra "cheeo" note, but I rather doubt it.

I don't know why the songs of the ♂'s today were so much less variable than the songs of the ♂ I watched in the same area last year - see notes of Aug. 7, 1959, pp 8-9. It is obvious, however, that the songs we heard this morning must be considered the typical "advertising" songs of the species (as this seems to be the beginning of the breeding season for most species here, and there were so many Yellow-bellies singing this morning).

Perhaps surprisingly, none of the singing birds performed any overt hostile or sexual patterns - as far as we could tell - during the period when singing was most intense.

The whole "dawn chorus" decreased abruptly at sunrise. We still heard an occasional song, rather weak-sounding, during the next half hour or so. And then complete silence!

Ataquete, I

May 27, 1960  
Ca de Maqueto

This morning we saw another Yellow-belly singing in a hedge  
down here. Before sunrise as usual. His songs were slightly different  
from those we heard yesterday on Alacaso. Might be represented as follows:

"Tee-yoo Tee-yoo Too-too-too"

Sometimes followed by a Peetle. Sometimes the second note was  
"Too-wee" instead of "Tee-yoo".

As far as I could tell, the ♂ was sitting in his usual posture when  
uttering these notes. Not greatly fluffed.

I wonder if every local population of this species has its own slightly  
distinctive version of the local song pattern?

Cano Pulcincha

This afternoon we went back to the usual place, and saw a  
little more Yellow-belly behavior — and something of another species.

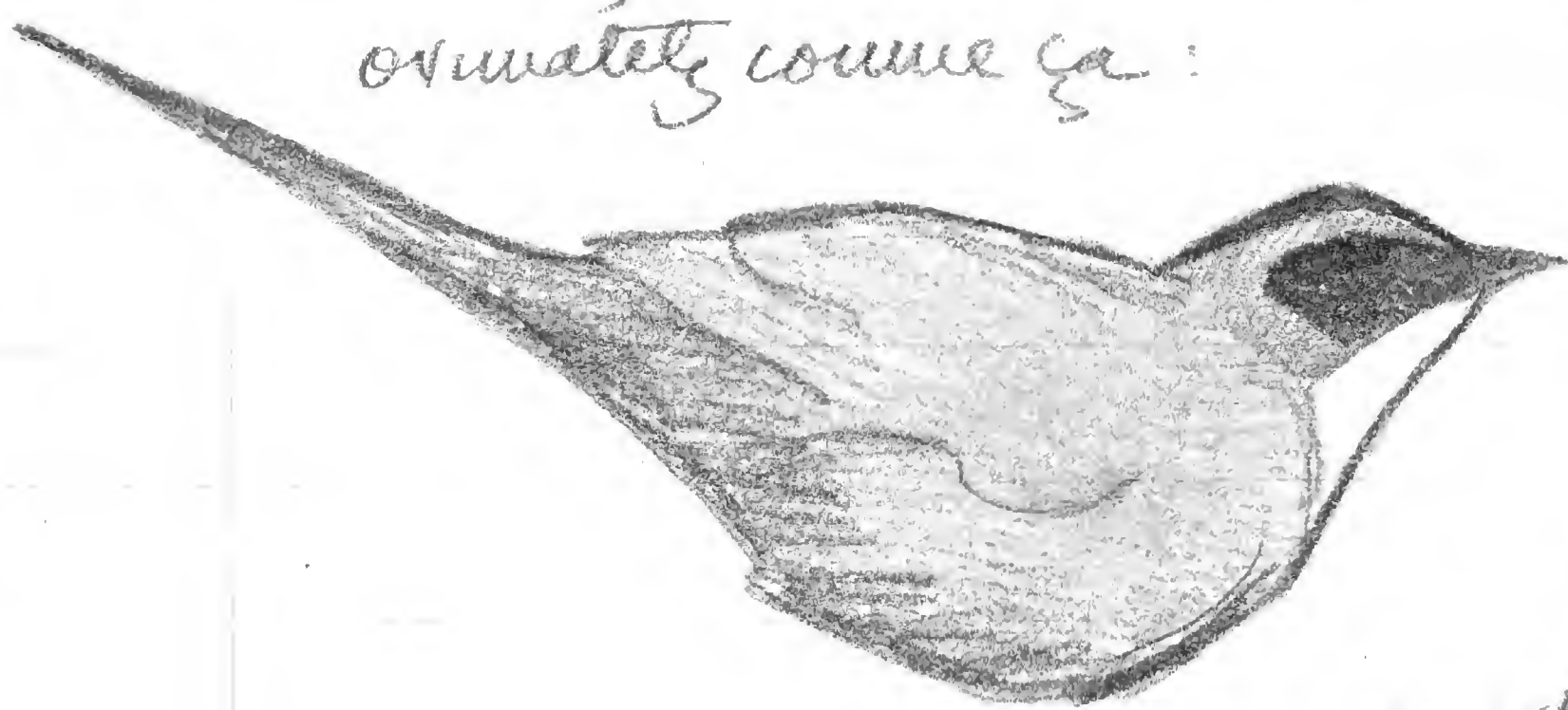
We probably heard another "greeting" song of the Yellow-bellies.  
A pair of birds moving about in the bush. (I didn't see them  
myself — but David is quite sure of their identity). When one bird  
apparently joined the other we heard a brief warble (probably the  
notes which David transcribed as "Zee-wee zee-wee..." on May  
25), which was accelerated into a definite, high pitched but compar-  
atively soft, rattle. Then the whole phrase, warble → rattle, was

Atlapetes, May 27, 1960, II

(17)

repeated once, immediately (there was absolutely no pause between the successive phrases).

This afternoon I also got my first good view of another species which is almost certainly Atlapetes annularis (= ~~Atlapetes~~) (I caught a few brief glimpses of a pair of the same birds last year - but too brief and too obscurely to determine what they were.) This bird looked approximately comme ça:



Very Pezopetes-like in general effect.

Big-bodied.

Head black & slate gray. (The exact arrangement of black and gray shown in this drawing may be slightly incorrect - as it was difficult to see in the light available this afternoon.)

Very conspicuous white throat. Upper parts olive. Underparts gray, fading to olive posteriorly.

The only interesting patterns I saw this bird perform today were flicking movements. U-D TF's with a strong lateral component. Also WF's. These WF's were rarer than TF's, but when they did occur they were synchronized with TF's.

This species is much more like the Atlapetes spp. at Cerro Punta than like the Yellow-belly in general habits. Shulking. Moving on the ground or in low bushes. Comparatively silent (I have yet to identify any of its calls or notes.)

In case I have forgotten to mention it above, the Yellow-belly is not only comparatively noisy but also non-territorial. It is a back-courting species. I have yet to see it move on the ground, but it is usually found in bushes 2-10 ft off the ground.

Atlapulco, I.

May 29, 1960  
Cerro Piedra

We heard 2 Yellow-bellies singing here this morning (quite far apart — definitely not the same bird. Both gave essentially the same song. A complete typical song phrase was comme ça:

"Feeoo Feeoo cluck-cluck-cluck"

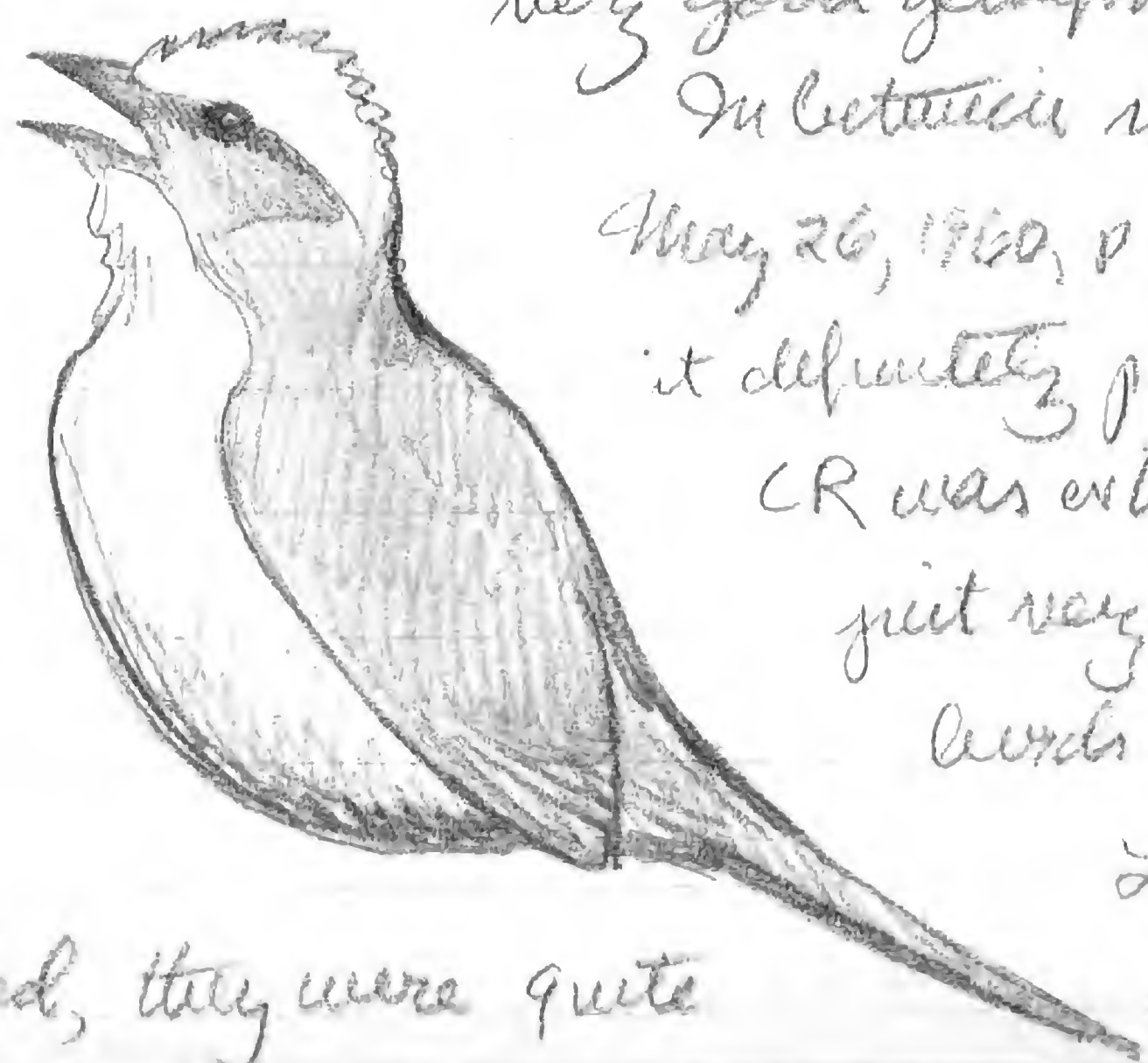
Occasionally an extra, fourth, "cluck" note was added at the end. To my surprise, there was never any R added. (One of these birds singing today was almost certainly the same bird I heard singing on May 21, see p. 21. He didn't utter any R's then either)

Both birds also uttered lots of "miscellaneous" "Feeoo"s and "cluck"s. Either singly, or in series, or all mixed together in apparently random order.

In some cases, the terminal 3 or 4 "cluck"s were replaced by 3 or 4 "cheer"s, abbreviated whistles rather like the first "Feeoo" notes but shorter.

I got one singing. Two shown on it uttered a note, usually upward. The times were

Both one while singing. Both Yellow-bellies I have watched, they were quite




very good glimpse of one of the birds. In between songs it sat in the pos May 26, 1960, p. 24, but every time it definitely pointed its head down. CR was extreme throughout, and just very slightly drooped. Birds appeared to be quite alert. Like the other Yellow-bellies during the

Atlixpetes, May 29, 1960, II

(27)

general period of song. A bird would first sit on one perch, sing, fly to another perch, sing, fly to a third perch, sing, etc. etc. During the actual moments the notes were uttered, however, it always sat quite still.

It seems obvious, now, that the "basic" structure of the song of this species is 

And I am more than ever convinced that each local population has developed its own local variant of song.

Atlixpetes, I

May 30, 1960  
Cerro Pichincha

This morning was cloudy, with occasional fog and/or rain, and we caught many more groups of Black-headed Bush-finchies (Cassinia idus), than on previous, largely sunny, mornings.

Usually we just surprised one bird, which flew or hopped away from us, with more or less CR. Always silent at all times.

Once, however, we came upon a pair. We didn't frighten them enough to make them fly away, but they were obviously alarmed by our presence, and went into elaborate display. Rather regular Bowing and rather regular Pivoting. The Bowing & Pivoting usually, but not always combined or synchronized. Tail usually definitely cocked upward (I shall call this "TV"). Extreme U-D TFS, with very strong lateral component, frequently superimposed upon the TV. No WF's. Instead the wings were held out from the body & held and kept motionless. The body plumage was only slightly fluffed, if at all. CR was very extreme. And there was a moderately extreme "Hf"! While perched, the birds always

days or almost always kept the "hues" bent, always or almost always sitting on their tarsi. The birds interrupted their Bowing and Pivoting from time to time, to hop or fly to a new perch, but they always resumed Bowing & Pivoting, with CR, Hf, etc., immediately upon landing again. (I imagine that they even maintained the CR & Hf when hopping or making only very short flights.) Throughout this whole performance, they kept their eyes on us, and one of them would hop to us from time to time in order to get a particularly good look.

The whole performance was obviously homologous with the "intents" or movement of flight bowing of Yellow-throated Atlapetes (see notes of Mar. 26, 1960, p. 117) but much more exaggerated and ritualized.

Bowing  
Postures  
(both with  
extreme TV)



Low



High

Atlapetes, May 30, 1960, III.

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The whole performance lasted at least 4 or 5 minutes.

Both birds were quite silent throughout the whole performance.

I got a much better look at the birds today. Bill black. The head as a whole is dark gray. Upon this gray is superimposed a black facial mask and two black stripes along the edge of the crown. This leaves gray supra-ocular stripes, and a gray median stripe on the ground, plus a lot of gray behind the black mask (the black mask does not reach the back of the head - it is probably only a cheek patch).

The gray median stripe is not visible during slight CR.

We came across one Black-headed Bush-finch which appeared to be travelling along a hedge with a party of Yellow-bellies.

The only time we saw a Black-headed Bush-finch actually feeding, it was hopping about on the ground, in the path.

Early this morning, but after sunrise, we came across a Yellow-belly (possibly or probably not one we have watched before) singing in a hedge. This bird had still another type of song!

"Isa wheeso wheu" or

"Isa wheeso wheeso wheu" or a similar song with a lot of notes added at the end:

"Isa wheeso wheu-ew-ew-ew-ew-ew-ew...."

This bird was moving through the hedge in the usual way, and singing in the usual posture. Apparently quite alone.

Later in the morning we surprised a party of 3 Yellow-bellies in an adjacent hedge. Possibly a family (one bird had a gray wash on its sides and may have been a juvenile). These birds uttered a great many, rather surprising, soft and thin, CN's. "Dit" or "Didit" or "Dididit" or in even longer series, e.g. "Dididididididit" (the number of notes in these longer series was quite variable, did not appear to be fixed).



Atlapetes, May 30, 1960, IV

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These birds had CR when we watched them

Once, when one bird flew and landed beside the other, one or both birds uttered the "Greeting" "Zee wee zee wee zee wee ..."

I have never seen any Yellow-bellies perform ritualized Bowing or Pivoting or TV when alarmed. They may cock the tail a little, or perform comparatively slight and irregular bowing or pivoting movements, but all these patterns appear to be quite unritualized in form.

I have never noticed any flight of the Yellow-bellies either.

Atlapetes, I.

May 31, 1960  
Cerro Pichincha

We did most of our work near Nova today (see today's notes on Diglossini). This is 500 to 1000 ft lower than the other area where we have made our previous observations on Pichincha.

Yellow-bellies are surprisingly common near Nova. Both in the hedges on the edges of the road and cultivated fields, and in the heavy vegetation of the ravine of the river. There is at least one pair of Black-heads here also, in the lower margin of the shrubbery along the cultivated fields.

As a result of watching both species quite a bit today, both near Nova and in the area where we have worked before, I can corroborate my previous impressions of the habits of the 2 species. All the Yellow-bellies I have seen have been in bushes or low trees. Never feeding on the ground. But I have never seen Black-heads feed anywhere except on the ground. We have frequently seen them feeding on almost bare patches. The 2 species would seem to be strictly non-competitive.

Both species are also completely non-gregarious. Always or almost

Atlapetes, May 31, 1960, II.

(33)

SS always alone, or in pairs, or what appear to be family groups.

Early this morning, in exactly the same area where we have heard a ♂ Yellow-belly sing  type song on previous




days, we heard the same type of song again. Obviously the same ♂, sticking to the same type of song for (at least) an appreciable period

Atlapetes, I


June 1, 1960  
Cerro Pichuncha

Working near Hono again today.

Watched one Yellow-belly in particular. Sang early this morning and then again at 4:30 p.m. this afternoon. Most of his songs were more or less like the ones we have heard other birds utter before (none of them included any terminal rattle), but a few of his song phrases were slightly peculiar. A complete phrase of this peculiar type might be represented as follows:

   cha-cha-cha-cha-cha-cha-cha

(The number of "cha" notes at the end was quite variable — sometimes only one or two.) The bird sat in the usual singing posture while uttering this type of song. Always apparently alone.

All or almost all the Yellow-bellies we have seen singing this trip have been apparently alone. This would definitely indicate that the song of this species (at least the  part, without the rattle) is usually or always produced by the activity of some pairing and/or several birds.

Atlapetes, Jun. 1, 1960, II

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Several times, both today and yesterday, we have observed more Yellow-bellies uttering "Dit", "Didit", and "Didedide...." notes quite like those described above on May 30, 1960, p. 31. Some birds near water and others apparently alone. None of these birds appeared to be alarmed by us at the time, so I am now almost certain these notes are "ordinary" CN's rather than AlCN's.

Atlapetes, I

June 2, 1960  
Cerro Pulwicha

Working near ~~Hono~~ again today.

This morning, from the time I arrived, at 6:00 a.m., until at least 7:00 a.m., there were Black-headed Atlapetes singing all over the place!!

I first became aware of this when a single Black-head flew across the road right in front of me. It uttered a lot of single "feeeeee" and "fweeeeee" Notes in flight, and then continued to give the same notes after it landed, out of sight, in the bushes. After it had landed, it also uttered a few doublet notes "fee - seeeeee" ————— interspersed with the single ones. Then it began to utter "soo - eeeeee" Notes instead of the previous "feeeeee" and "fweeeeee" Notes. All these notes were relatively clear and whistle-like, and at least moderately loud. The bird continued to utter "soo - eeeeee" Notes for quite a long time. They appeared to be essentially single notes, repeated at fairly distinct and rather regular intervals. Comme ça:

I could never get a good view of this bird while it was uttering these notes, but it was obvious (from the sound of the notes — and from the

few glimpses I did manage to get) that all or most of these notes were uttered when the bird was on the ground or (less probably) when it was in low bushes very close to the ground.

At this point, I began to think that the "foo-eeeeee" Notes might be the song of the species, and I tried to track down the bird by moving through the bushes. This apparently frightened the bird. It immediately fell silent and moved away from me. Then it started to utter "foo-eeeeee" notes, as before, about 10 yds further away.

This incident would indicate that the "foo-eeeeee" Notes can not be a form of ALCN — and might suggest that they are not hostile.

A few minutes later, I heard similar "foo-eeeeee" Notes coming from low inside very shrubby vegetation, in an entirely different place! I never caught the briefest glimpse of the bird uttering these notes. But the area from whence the notes were coming was an area where we saw a pair of Black-headed Atlapetes a couple of days ago.

Still later I surprised a single Black-head feeding on a path. It immediately flew into a nearby bush, and, after a brief pause, began to utter "foo-eeeeee" Notes just like the other birds. Again, I couldn't see it while it was actually uttering the notes. This bird gradually moved off through or under the bushes, still uttering the same notes as it went.

Finally, at a fourth spot, I heard identical "foo-eeeeee" Notes, again coming from low in the vegetation or the ground. I am sure that this bird was not aware of my presence for a long time. It sat or stood in the same spot for at least several minutes, uttering the notes quite regularly. Again, I was unable to see the bird. When I moved forward to try to get a glimpse of it, it immediately fell silent.

All these incidents would indicate that the series of single "foo-eeeeee" Notes are really the "advertising" song of the species. Pres

Atlapetes, Jun. 2, 1960, III.

(36)

usually produced by thwarting of some pairing and/or sexual drive(s). It is probably significant that both birds I saw put before they began uttering "foo-eeeeee" Notes, or in the intervals, between notes, were apparently single.

The Yellow-bellies were singing even more intensely this morning. Quite commonly until well after 7:30 a.m. The usual variety of songs for the birds of this area. Still without rattles. The length of time the birds sing here would suggest that they are more advanced in the breeding cycle than the birds we heard on Cerro Atascoso. Perhaps the absence of the presumably hostile rattle at the end of songs is merely an indication of a relatively advanced stage of the cycle?

I heard lots more CN's and "greetings", like we heard before, uttered by quite a number of birds this morning. Most frequently uttered by some birds which appeared to be moving about in a party of 4, perhaps a family party. It is my impression that both the CN's and the typical "greeting" sounds are usually most common in such parties.

Twice I heard one bird utter some more distinctive sounds, apparently as "greeting" when it joined its mate. This peculiar "greeting" was a real "warble", a very rapid "Tit-it-it-it-zeeaa-zeeaa-zeeaa-zeeaa". Perhaps a peculiar combination of ordinary CN's and typical "greeting" notes???

The bill of this species is really quite large and thick - for an Atlapetes.


I noticed this morning that the feathers of the crown are really conspicuously separated during CR's.

This afternoon I heard what was apparently a Black-headed Atlapetes begin to sing around 4:30 p.m. Mostly "foo-eeeeee" Notes, intermingled with an occasional "feeeeeee". Listening close up, it was appar-

Atlapetes, June 2, 1960, IV.

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out that some, but not all, of its "foo-eeeeee" notes were really more like "Ja-soo-eeeeee".

In connection with the song of the Yellow-belly, it may be significant that the usual song of the Andean Sparrows here is 2 whistles followed by a rattle.  Atlapetes and Zonotrichia may be not too distantly related.

Atlapetes, I.

October 3, 1960  
Cerro Punta

Watching a mixed flock, just below the big bend in the road where I have done so much observing on previous visits here. Suddenly a Yellow-throated Atlapetes flew out of a hedge on one side of the road and landed in a bush on the other side. (It may have been joining its mate in the bush, but I am not sure about this.) In any case, it apparently uttered a very soft "song" immediately upon landing in the bush. This might be translated as "Tee tree tree tree tree sree sree sree sree sree sree ...". Probably accelerating. Rather twittering in general effect. Rather reminiscent of the Wbl of Pselliophorus. Probably even more like the "quieting" vocalizations of the Yellow-bellies in Ecuador.

It is beginning to look as if this species may have almost as many different types of "song" as the Yellow-belly.

I wonder if the extreme softness of the songs of the Yellow-throats might be explained as follows. They are essentially followers in mixed flocks. Perhaps disadvantageous for them to attract other species - rather than the reverse. Their original song may have been loud and Pselliophorus-like. But, as the Bush-tanagers seem to have developed a positive reaction to Pselliophorus songs, the Yellow-throats have had to modify

Atlapetes, Oct 3, 1960, II

(58)

of their songs somehow. Probably reduced the loudness of their songs, instead of developing a different type of loud song, because our loud vocalization is attractive to other species, to some extent (even apart from such special reactions as the Bush-tanager  $\rightarrow$  *Psaltriparus* reactions).

Atlapetes, I

October 6, 1960

Cerro Punta

I was walking through some badly cut over old forest, with a lot of low and thick shrubbery around, when I suddenly saw one Yellow-throat hopping around natively in a tangle, about 6 ft off the ground. During this hopping it frequently assumed a real St. Posture. Comme ça



Possibly head even more nearly vertical

Looking very long and thin

Not sure about angle of tail. Possibly straight down. Possibly more in line with head and body. Probably variable

This looked very much of slight bowing, but was much

like the high posture during int. mov. more exaggerated

During all this hopping about 6 ft. Postures, the bird uttered a continuous series of relatively very loud ECN's: \_\_\_\_\_

As far as I could tell, its bill did not open and close with the notes.

Atlapetes, Oct. 6, 1960, II.

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It was difficult to get a clear view of the bird during this performance, but it did not seem to have the slightest trace of CR or any sort of throat-fluffing. Rather surprising.

After watching this bird a few seconds, I suddenly saw that there was another bird about 3 ft away from it. Also hopping about, and frequently assuming extreme St. Postures. But apparently silent throughout.

During all this hopping about, the two birds usually managed to stay facing one another, i.e. displaying their yellow throat patches to one another.

Then the second bird suddenly flew at the first, and there was a violent contact fight between the 2 birds, tumbling about in the air. Both remained absolutely silent throughout. No trace of R or HAC. Then both flew away and were lost to sight.

The fact that the bird who was attacked was the one who had been uttering ECN's might suggest that the ECN's are produced when escape is at least as strong as, or even stronger than, attack.

In any case, one of the birds was back in the same tongue after a few seconds, hopping about, assuming St Postures, and uttering ECN's, just like the first bird before the fight. But it soon flew away again, presumably because no other bird appeared.

Atlapetes, I

October 17, 1960

Cerro Punta

Both the day before yesterday and today I heard Atlapetes-type songs coming from a hedge near the great bend of the road. Today I finally managed to see the birds. They were Chestnut Capped Bush-finches. Both the day before yesterday and today, the bird(s) were singing when I arrived in the area, around 6:15 a.m., and continued for about 15 minutes (dawn



songs are obviously characteristic of birds in hatching flocks, both Atla  
petes and Ameisnops. Why?)

All or most of the songs I heard the day before yesterday were more or  
less comme ça

"dub dub-dub dub dub-dub tseeeeeeeeeee"

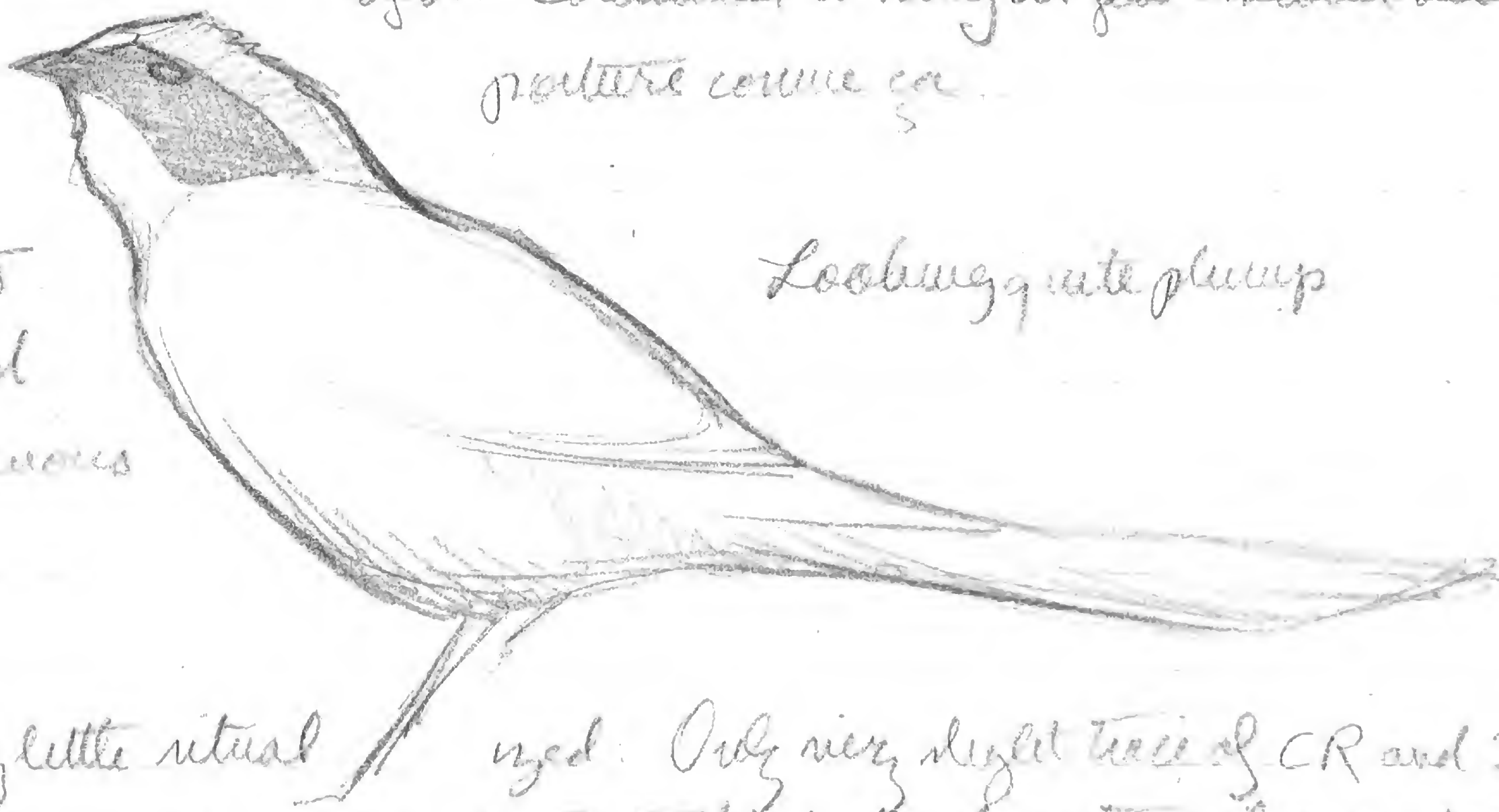
When I first arrived this morning, most of the songs coming from the  
hedge were more or less comme ça

"dub ta tseeeeeee ta tseeeeeee"

Then one of the singing birds (perhaps the only one who had been singing  
in the hedge) flew across the road. Landed in a thicket, where I caught several  
decent views of it. Continued to sing at few-second intervals. In  
posture comme ça

White spots  
on forehead  
very conspicuous

Looking quite plump



Obviously very little ritual used. Only very slight trace of CR and Phly.  
After flying across the road, I think the bird continued to utter song phr  
ases just like the ones it uttered in the hedge before hand.

Surprisingly enough, another bird in the hedge (presumably the mate

Altopeter, Oct. 17, 1960, III

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of the bird who flew across the road) then began to sing "in response" to the bird who had flown across the road. I think this second bird's song phrases were more or less exactly like those of the first.

After a while the second bird stopped singing, but the bird who had flown across the road continued to sing frequently. By this time, however, I noticed that its song phrases were slightly different. Course ca:

"dick dick                  dick dick dick"

(The transcriptions of all these songs may be slightly unleading in one respect. All the notes of all the songs by both birds were thin, clear, high, whistles. Very reminiscent of ECN in quality.)

This continued for at least 2 or 3 minutes. Finally the second bird flew across the road also, and landed about 10 yards from the first. The first immediately stopped singing. Then the two birds hopped toward one another, through the brush, and presumably re-joined one another, although I could not see them any more at this stage. Perhaps significantly, I did not hear any sort of "greeting" song when they presumably met.

This incident would suggest that both the ♂ and ♀ of this species can sing, but that one sex does so more often than the other.

It is obvious that this species has a great variety of different types of song, like related species.

This afternoon I disturbed a pair of Yellow-throats, coming upon them rather unexpectedly. One bird stood in the open and watched me for several minutes. Frequently stood in the posture shown on p. 4 above, with extreme CR. Also made int. mov. of flight bowing movements.

I think that CR must be an indication of a relatively strong escape drive. This bird was obviously nervous about me.

Atlapetes, I

October 9, 1960  
Cerro Punta

In my notes of Oct. 8th, 1960, on Atlapetes, I suggested that the Yellow-throated Bush-finch might also be breeding at this season of the year. I should add, therefore, that I saw a group of 3 Yellow-throats moving about together this morning, near the upper pasture, so they presumably are not breeding now.

I still don't understand why these Yellow-throats near the upper pasture do not join the mixed flocks.

Atlapetes, I

April 11, 1961  
Cerro Punta

I have caught a few brief glimpses of Yellow-throats, usually or always solitary birds, from time to time in the course of my observations of other species during the last 4 days.

This morning, I saw one Yellow-throat carry some several times to a bush very near the nest of the B Yellow-throated Cree (yesterday's nest is on Pulliphus). Quite silent. Not accompanied by mate.

So it seems likely that all or most of the Yellow-throats around here are nesting now.

Yesterday morning, just at dawn, I saw a single Yellow-throat sitting very high, on an exposed bare branch of a tall tree, near the area where I saw the Yellow-throat nest-building today. Sat there for at least 5 minutes, in an apparently unmutualized posture. Apparently silent. This is the only time I have ever seen a Yellow-throat so "exposed". Quite reminiscent of footy-capped Bush-tanagers.

Atlapetes, Apr 11, 1961, II.

(43)

A couple of days ago I surprised a Yellow-throat in a thicket standing in an extreme St. Posture. Quite like the posture drawn on Oct. 26, 1960, p. 38, but throat more fluffed (evenly rounded in outline). This posture may have been intermediate between the St. Posture drawn on Oct. 26, 1960, and the posture drawn on Mar. 12, 1959, p. 4. No CR. The bird was definitely quite silent as long as it remained in this posture. When it flew off and disappeared from sight.

I don't know if this St. was provoked by me or by some other bird(s) in the neighborhood.

This afternoon, much to my surprise, I saw 3 Yellow-throats moving about together, without any signs of hostility. Does this mean that some birds of this species breed at different times of the year here?

I also surprised one bird in a bush. It stood quite close to me, uttering lots of hard "Tut" CN's. Performed a number of unequal and unbalanced-looking bowing and pivoting movements. All this with just slight CR and Shf.

Atlapetes, I.

April 13, 1961

Cerro Punta

I came across a pair of Chestnut-capped Atlapetes early this morning. In a thicket about half way between the upper pasture and Cerro Punta. I shall call this pair "A". They seemed to be quite tame. Spent most of their time feeding quite close together.

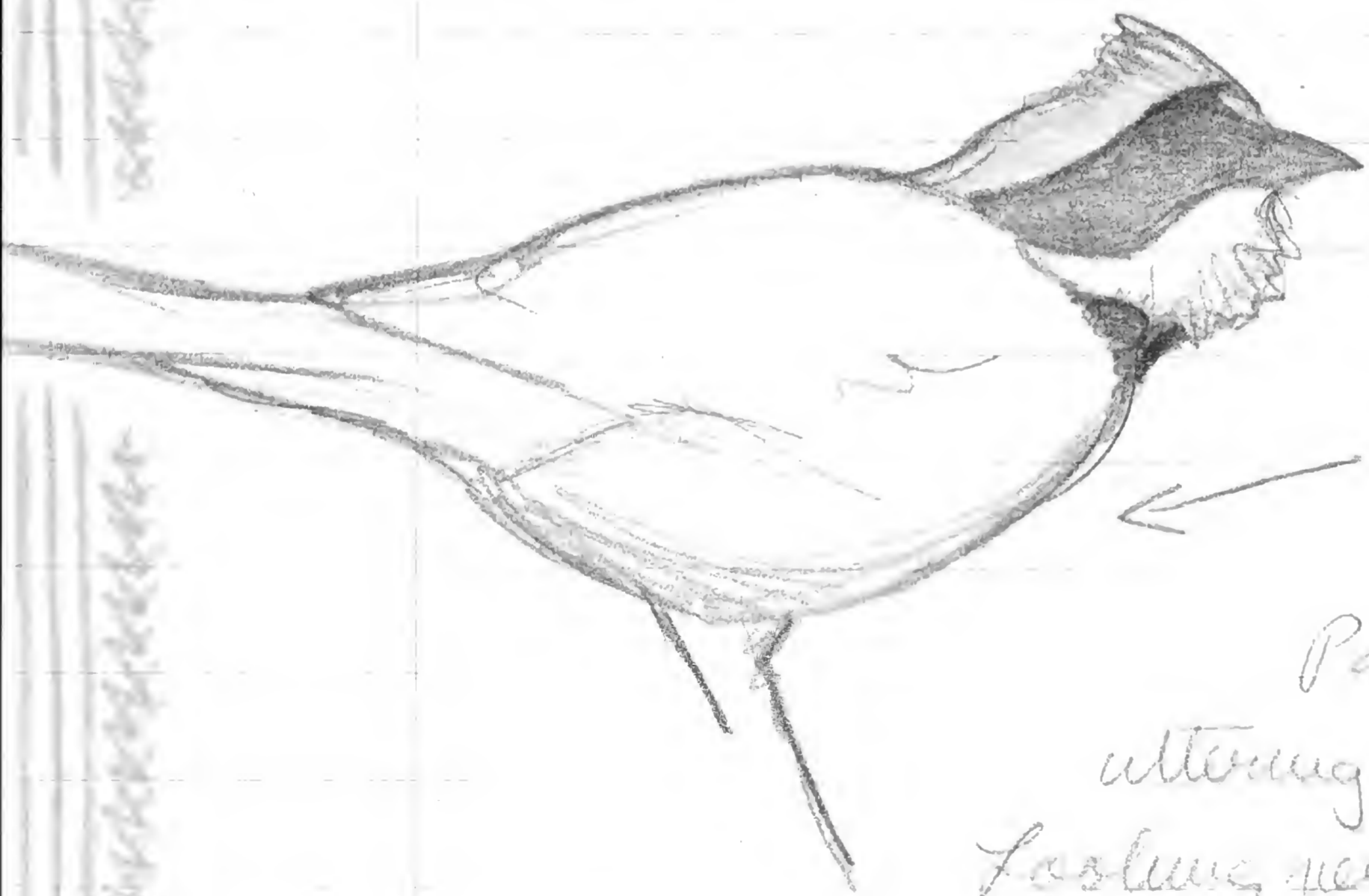
During feeding, they flicked leaves aside with their bills and pulled at food with their bills without flicking. No scratching hops like Pezopetes.

Most of the time I watched the birds, one or both uttered faint

Atlapetes, Apr. 13, 1961, II

(44)

but sharp "Tut" Notes. There may have been CN's or AlCN's. (I rather think the latter.) Even once in a while, one of the birds would hop closer, obviously to get a better look at me. At such times, it had a more or less extreme CR, and (always or almost always) extreme Shiff. At such times, it also tended to perform a few irregular but rather unritualized-looking bowing and pivoting movements. With quite extreme WF's and TF's. (I think that both the WF's and TF's of this species are quite like Pelliopterus. The tail was certainly also spread most of the time the bird was near me.) The bird continued to utter "Tut"s as before whenever it came close to me.

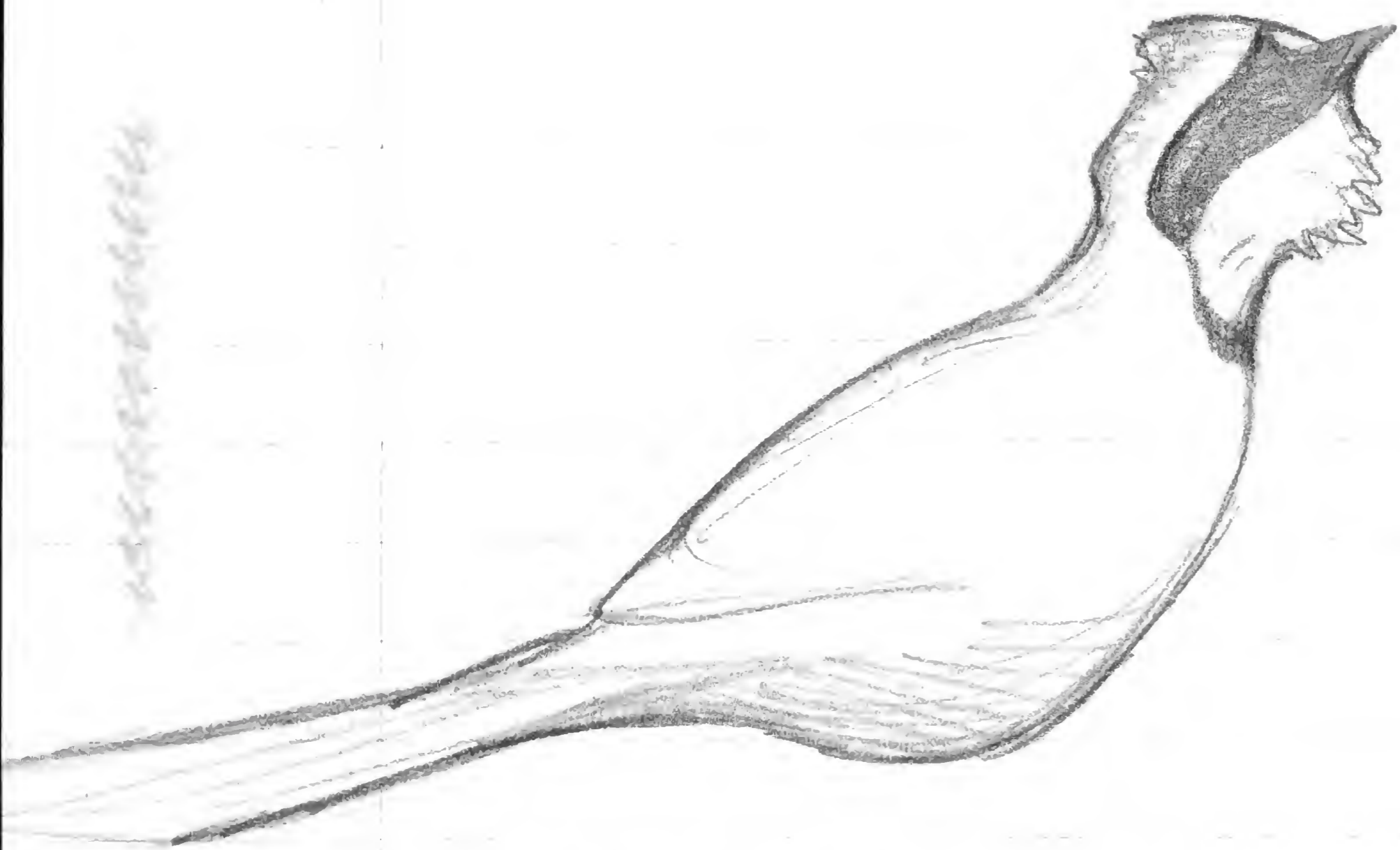


Notice curve of "mark"

Body probably too small

Part of the time the bird was near me uttering "Tut"s, it kept the neck retracted looking very plump and big-bodied. As in drawing above. It remained in this posture even when it performed slight bowing and pivoting movements.

Only once or twice did the bird perform bowing which was almost as extreme as some of the Bowing of assimilis and Pezopetes I have seen. At such times, the neck was definitely stretched. See drawing on next page.



High low posture.

Later in the morning, I suddenly became aware that one of the Chestnut-capped Atlapetes was "muzzing" quite loudly. Comme ça:

Za - weeeeeee Za - weeeeeee Za - weeeeeee  
 ~~~~~ ~~~~~ ~~~~~

Repeated again & again. The second note of each doublet had a definite rattle undertone. Much stronger & louder (almost pure R) in the second note of the last doublet. Unfortunately, I could not see the bird well while it uttered this vocalization. I was, however, able to determine that the bird was perched in a tangle of vines, at least 8 feet above the ground, while it uttered this vocalization. This is by far the highest I have ever seen a Chestnut-capped Atlapetes. The bird also seemed to be alone (I don't know what happened to its mate). But then a sudden aerial chase and fight developed! I couldn't catch the details of this. Certainly involved 2 birds. Certainly one Chestnut-capped and possibly another Chestnut-capped or a flycatcher.

(I am fairly certain that the bird uttering these "Za - weeeeeee  
 Za - weeeeeee Za - weeeeeee" vocalizations had considerable

highly, and it probably had some (R also.)

Both birds of the pair were back a few minutes later. Behavior



Atlapetes, Apr 13, 1961, V.

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Midentally - I forgot to mention - but I suppose that most of the "Ja-zeeeeeee" notes I heard today (at least the ones without the rattle undertone) were the same as the notes I transcribed as "ta-zeeeeeee" and "tah-zeeeeeee" before.

Atlapetes, I.

April 14, 1961

Cerro Punta

This morning I watched the same pair of Chestnut-capped Atlapetes as yesterday. Behaving in much the same way as yesterday.

One bird became separated from the other while they fed. It flew across an irrigation channel. The bird which left its mate then started to utter "songs". Quite variable, but mostly comme ça:

"Ja ta zeeeeeee ta-ta"

The last notes (the "Ja-ta"s) were usually louder than the rest (and lower pitched than the preceding long note).

Sometimes the bird uttered "abbreviated" songs. More or less comme ça "zeeeeeee zeeeeeee"

There was a faint rattle undertone to some of the "zeeeeeee" notes in both types of songs.

All these songs were accompanied by some (R and Hflff) - but this may not have been very significant (the birds always seem to have some (R and Hflff) whenever I see them).

As in the case of Phylliophorus (see today's notes on P.), I wonder if the long "zeeeeeee" notes in the "songs" of the Chestnut-capped Atlapetes are really essentially SN's?

Later in the morning, the 2 birds of this pair of Chestnut-capped became separated again. One of them immediately began to sing, more



Atlapetes, Apr. 14, 1961, II.

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or less in the same way as earlier this morning, and in the same way I have heard other Chestnut-cappeds sing on previous years. Lots of their high "Zzzzzzzzz" notes, and also lots of shorter "duh" or "ta" notes. Somewhat variable in arrangement. No appreciable rattle undertone. Then the bird came closer to me, continuing to sing all the while. When it was quite close to me, its songs became "Tut tut tsaaaaaauh", frequently repeated. With a definite rattle undertone. This would certainly confirm my impression that the rattle undertone is essentially hostile.

I think that all the "songs" of this species might be interpreted as combinations of CN's and SN's, with R's in some cases.

Atlapetes, I.

April 15, 1961

Cerro Punta

Watching birds in the area halfway between the upper pasture and Cerro Punta again this morning.

I arrived rather early (ca. 6:15 a.m.), and found, much to my surprise, that the Yellow-throated Atlapetes has a "dawn song" very much like the "Keeyoo" song of the Sangre de Toros, the "Whew" song of the Buff-throated Saltator, and the "Kew" song of the Striped Saltator.

I either heard 2 different Yellow-throats uttering "dawn song" or (less probably) the same bird uttering "dawn song" in 2 different places, quite far apart from one another. In any case, I heard 2 long bursts of their "dawn song". I did not see the bird uttering the first burst, but I caught a few glimpses of the bird uttering the second burst.

Both bursts were uttered by bird(s) perched fairly high (5-10

feet above the ground) in very thick shrubbery. Not exposed to public view.

Both bursts of "dawn song" were the same "Keeyah kew keeyah kew keeyah kew keeyah kew keeyah kew keeyah kew keeyah . . . . .". Indeterminate in length. Essentially a regular alternation of "Kew" and "Keeyah" notes. "Kews" sometimes repeated twice without intervening "Keeyah". I think that the "Kews" were sometimes or usually higher pitched than the "Keeyah's". Comme ça: "Kew keeyah kew keeyah . . . . ."

The yellow-throat uttering the second burst of "dawn song" this morning did not sit still throughout the performance. Sometimes sat on a perch for a few seconds, but would then hop from perch to perch for awhile, before sitting down again temporarily. (It is possible that this bird was disturbed by my presence. From the sound alone, I think the bird uttering the first burst of "dawn song" sat still throughout.)

The most peculiar feature of the performance of the bird uttering the second burst of "dawn song" was "wing-raising" ("WR")

Posture of bird uttering "dawn song" as it hopped through bushes.



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Every time the bird uttered a note (both "Kew"s and "Keeyah"s) it raised one or both wings. (I think both, but I can't be sure of this). This raising was one slow, stiff looking movement. No Q. The wing(s) raised well above the level of the back (and probably held out too, but I couldn't see this from my point of view). The wing(s) were apparently closed, and folded away, completely between successive notes. The bird did WR both when it was perched and when it was moving. (The wing on the side near me looked dark underneath when raised, but this may have been an optical illusion.)

Apart from this WR, the bird uttering the second burst of "down song" did not perform any special ritualized movement. The "down song" was accompanied by CR and some Shiff (which were apparently maintained between notes and WR). The bird looked big-headed, with a small plump body. I think the tail was kept more or less fanned throughout. I do not remember noticing any TF's. The bird seemed to be more or less hunched throughout the performance, but I don't know if this was ritualized or not. Aside from this slight "hunching", its posture appeared to be unritualized sitting or hopping postures.

I think this WR must be closely related to the Q of male Brown-capped Bush-tanagers during their early morning "Sweet"-Q performances (the ♂ Brown-caps also raise the wings above the back during the Q of their "down songs".)

The bird(s) uttering both the bursts of "down song" this morning appeared to be quite alone, without any mate in the neighborhood. This is what would be expected.

All the "down song" of the Yellow throats seemed to be over by 6:30 this morning. I did not see the bird(s) again later in the morning.

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I also watched some Chestnut-capped this morning. Probably always the A birds.

When I first arrived, one of the Chestnut-capped was sitting by itself, low in the shrubbery, uttering the usual kind of song "Ja-a-zeeeeeeeee zeeeeeeeee" and "Ja-a-zeeeeeeeee zeeeeeeeee zeeeeeeeee", repeated at length (the 2 types of phrases being given in an apparently random order). The bird uttering these phrases seemed to be separated from its mate.

I heard these songs before I heard the second kind of "down song" by the Yellow-throat (see above). It is possible, therefore, that this species does not have a special type of "down song" like the Yellow-throat, the Sangre de Torro, and the Saltator. Perhaps more like rufinucha in this respect?

Later in the morning, I saw one of the X birds become separated from its mate 3 times. Each time the isolated bird began to sing immediately. The songs were slightly different on the three occasions. Once, the bird repeated "Dre ta zeeeeeeeee ta-zeeeeeeeee" phrases. The second time, the bird repeated "Ja-zeeeeeeeee Ja-zeeeeeeeee Ja-zeeeeeeeee" phrases. The third time, the bird repeated "Ja ta-zeeeeeeeee zeeeeeeeee" phrases.

It is obvious that the songs of this species are quite variable, within rather narrow limits. Also, whenever a bird begins to sing one type of phrase, it tends to repeat the same type throughout a whole burst of song.

I think that all the "zeeeeeeeee" notes of all songs may have a slight rattle undertone, but this undertone is always very inconspicuous unless the bird is obviously hostile.

The TF's of this species are always or almost always V-D,

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always with a strong lateral component. When moving about normally (undisturbed) the birds perform few or no WF's (I imagine, however, that the species may perform WF's when "upset" — like other bush-finchies.)

Atlapetes, I.

April 16, 1961

Cerro Punta

I went back to the same place again this morning. Arriving early, around 6:10 a.m. When I arrived a Yellow-throat was uttering "dawn song" in exactly the same spot I first heard the "dawn song" yesterday. The bird was very well hidden, and I never even caught a glimpse of it. The song itself was exactly the same as the one I heard yesterday. "Kew" is definitely higher pitched than "Keeyah" as I finally flushed the singing bird, without, however, actually seeing it. Then, a few seconds later, I heard a Yellow-throat uttering the "dawn song" in exactly the same place I heard the second bird of singing yesterday. But again I was unable to see the bird. It finally stopped singing without my ever catching a glimpse of it.

Then, a few minutes later, at 6:37 a.m., I saw a Yellow-throat perched in a quite high exposed position (about 15 feet off the ground) uttering a few "scattered" "Kew" and "Keeyah" notes. Comme ça: "Kew . . . . . Keeyah . . . . . Kew-Kew . . . . . Keeyah . . . . ." Presumably the lowest intensity version of the dawn song. With CR and Th fluff. Bill opening & closing with each note. No WR. One WF with one of the notes. Then the bird flew away without doing anything more.

Atlapetes, I

May 24, 1961  
Quito

During the last few days, I have seen quite a lot of refin cha near Hono, near Inaquito, and on Atacaso, in the same places we saw them on previous years.

I have seen a lot of ♂'s singing alone, both in the early morning and in the evenings. (I am certain now that ♂'s of this species never sing except when they are unmated or separated from their mates.) It is obvious, however, that almost all the birds are mated now. The birds which sing usually or always join, or are joined by, their mates eventually.

I have even seen one apparent family group. A pair of adults followed by a (dull) juvenile!

I have only studied the songs at Inaquito and on Atacaso. In both places, the morning songs of all the birds were essentially "Wheoo wheoo tut-tut-tut". This is just what I considered to be the "basic skeleton" of the song last year!

I think there is only one refin cha singing at Inaquito this year. His songs have been quite remarkably stereotyped. His songs have never included Rattles. He usually utters the typical "Wheoo wheoo tut-tut-tut" and nothing else. I would diagram his typical songs as follows:



This is somewhat different from my diagrams of typical songs last year. The only variations in song which this bird has shown this year

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2 have been the occasional addition of a third, whistle-like, "Wheeeo" note, right after the first two, and/or the occasional omission of one of the terminal "Trit" Notes.

I only observed the birds on Atacaso this morning. Just at dawn, at least three birds began to utter typical "Wheeeo wheeeo trit-trit-trit" songs. Again no Rattle. Then, a few minutes after dawn, some or all of them began to add Rattles to their songs. Course ca: "Wheeeo wheeeo chip chip chip mmmmm."

This difference between the songs of the Maqueto bird and those of the Atacaso birds is the same as last year. Last year, I suggested that the incorporation of hostile R's into the song of the Atacaso birds was an indication that they were comparatively retarded in the breeding cycle. This may well be true. If so, the sex or pairing drives of the Atacaso birds this morning must have been relatively stronger (in comparison with their hostile drives) just at dawn than a few seconds later. (This is probably not surprising. I think the birds start to move around a bit just after dawn. They may then become more conscious of other ♂'s in the neighborhood.)

I have several times heard ♂ rupicola singing as they moved along ledges or through thickets. This tendency to sing while moving may be a significant resemblance to gutturales.

The only bird I have been able to see very well while singing is the Maqueto bird. Flight CR. Bill opening and closing with each note of the songs. No trace of wing movements like those of gutturales.

I have been paying special attention to the Call Notes and similar notes uttered by the birds apart from song.

Both single birds and pairs sometimes utter single "Trit" notes when they are hopping in thickets and/or flying. These notes are

Atlapetes May 24, 1961, III.

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sometimes repeated quite rapidly, but never, apparently, accelerated in to a Trill. I think these "Trit"s must be ordinary CN's or AlCN's.

On May 20, near Noor, I watched a pair of birds feeding in a hedge around 9:10 a.m. One of the birds uttered a series of faint, hoarse, rather high-pitched notes: "Zaa zaa zaa-zaa zaa-zaa zaa zaa zaa zaa-zaa-zaa . . . ." almost continuously, as the birds moved along the hedge.

This evening I observed a rather similar performance near Noor. Again watching a pair feeding in, and moving along a hedge (this may have been the same pair observed on May 20). Again, one or both of the birds uttered faint, hoarse, rather high-pitched notes as they moved. Usually the leading bird, I think. But I transcribed the notes tonight as "seeee seeee seeee seeee . . . ." I think these notes must have been essentially the same as the notes heard on May 20.

I first heard the "seeee" Notes this evening when I was some distance away from the birds. When I went closer, they stopped uttering "seeee"s and began to utter "Trit"s. A few minutes later, presumably after they had become used to me, they switched back to "seeee"s. This would suggest that the "Trit"s are AlCN's.

These "seeee" and "Zaa" Notes sound very much like the "greeting" notes I heard in 1960 and 1959 (see also below), and they must, I think, be closely related to the "greeting" notes. They are also reminiscent of the SN's, PEN's, etc. of other species. I think they must be used to call in, or keep in contact with, the mate.

They are remarkably similar, both in sound and (probably) context, to the "Zeee" and "seeee" Notes of the Dufrenoyas I have been studying.



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I saw one particularly interesting incident at Inaguato on May 22. One rufinucha was singing in a hedge. Then he suddenly flew up, uttering "Tut tut tut ..." or "Tuck tuck tuck ..." Notes, and flew to a bush several yards away, where he landed beside another rufinucha. Unfortunately, I couldn't see the birds in the bush, but I heard a lot of "Zeeee" Notes & R's coming from the bush immediately after the ♂ landed. Then the ♂ flew up, perched in a tree above the bush, uttered one long R, and then flew back to the hedge, with "Tut"s or "Tuck"s as before. A few seconds later he began to sing again.

This incident might suggest that "Tut"s are just plain hostile.

Atlapetes, I.

May 25, 1961  
Cerro Pichincha

Observing near Hono again this evening

I heard 2 more "greetings" between the members of pairs of rufinucha. Definitely 2 different pairs. Each time the "greeting" was uttered by only one bird of the pair, when one bird landed beside the other. I was not able to tell if it was uttered by the landing bird or the bird landed beside. Both greetings were essentially similar. "Zeeeee zeeeee zeeeee zeeeee". One much louder than the other.

I should stress that these "greeting" notes were quite clear and hard. Almost semi-R. Not at all hoarse. I.E. such "greetings" are probably not strictly homologous with the CHAC of other species.

Atlapetes, I.

February 4, 1967  
Barro Colorado

I have had some Yellow throats for a long time, with  
out watching them. A pair (sexes unknown) in a cage by them-  
selves with birds of other species. And a single bird (also of unknown  
sex) in a cage by itself without any birds of other species. This  
morning, we banded all the birds. The single bird was banded red.  
The others were banded pink and green. Going to put pink and  
green in red's cage, with red.

All released 9:30 a.m. Newcomer fly to side of cage. Pair  
is struck. Hop about a little. With CR, slight Thiff. Largely  
silent. Once one utters brief "Tee hee hee" when lands beside the  
other. "Greeting"?

Red stands in rather high bow posture, with little CR and  
no Thiff. Retreats when newcomer advances. Then does a little  
irregular, unritualized, bowing. Then just stands.

Can't see birds as full well

All about ever since the "Greeting".

Red now doing quite a lot of bowing, with slight Thiff and  
only a trace of CR.

Pink hopping about in corner. With extreme CR. Slight  
Thiff. Green near by. In St posture, moderately extreme, no CR or  
Thiff. Doing brief bowing movements occasionally. I presume green  
is ♂. Less alarmed than pink, who is presumably ♀.

Every once in a while one or both of the pink and green birds ut-  
ters "Greeting" when they come close together. As before. Perhaps a little  
more prolonged. Definitely twittering in effect. Might be transcribed

Atlapetes, Feb. 4, 1962, II

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as "Whee whee whee whee whee . . . ."

Then a few more abbreviated "Greetings" "Whee whee whee" or "Whee whee" 3-note type most common.

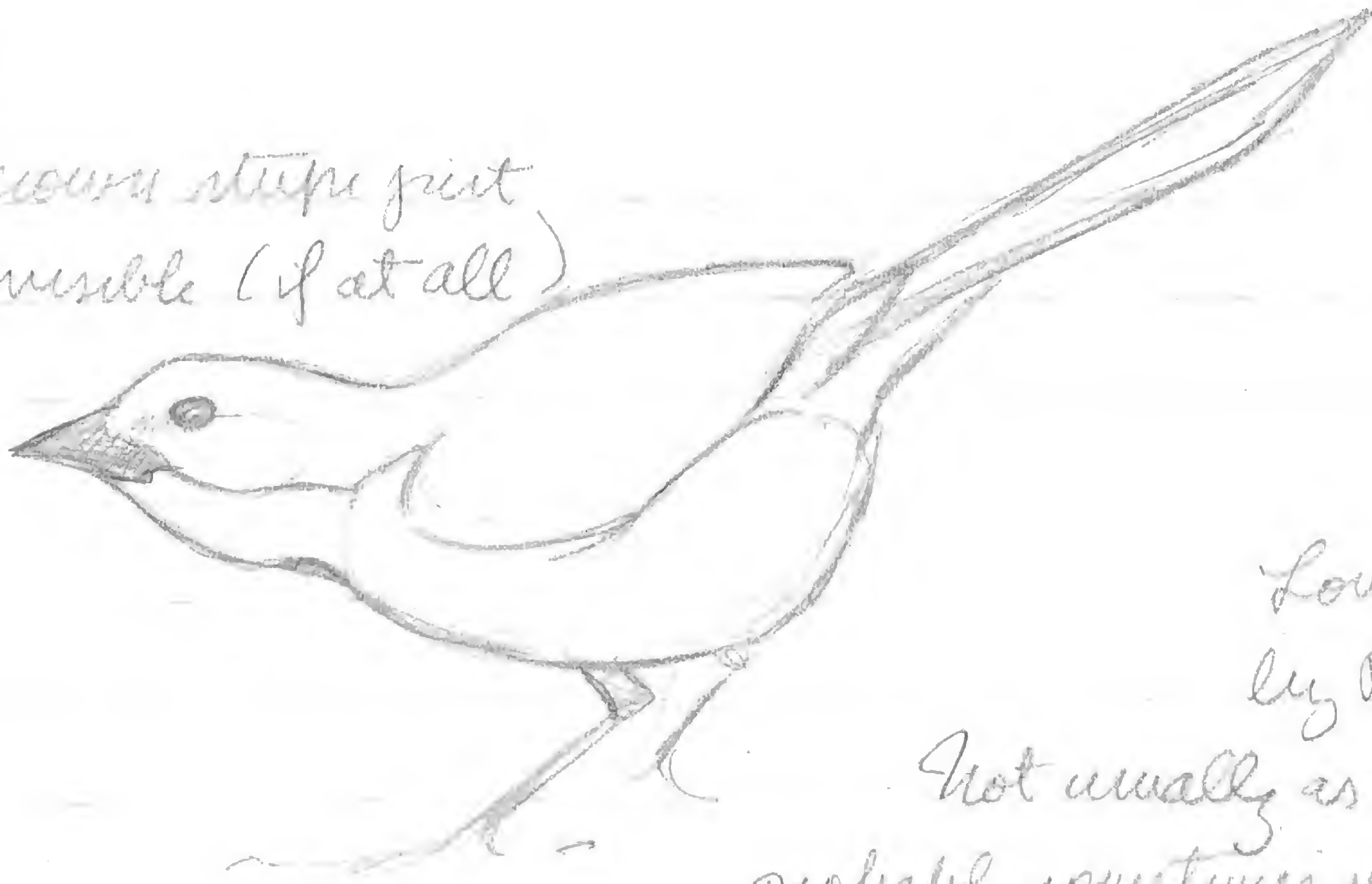
Red still put standing 9:40. Very slight Hflff and even slighter CR. Making occasional bowing movements. Green & pink just flying back & forth on far side of cage. Pink still with extreme CR, no Hflff. Green with neither CR nor Hflff. Green not really in ft, when perched between flights. But occasionally points bill diagonally upw and (while rest of body remains as in ordinary perching posture) when pink comes close to (him). Red then spends most of time pecking at ba nel on leg.

"Greetings" are not uttered by pink and/or green whenever they come together. Apparently uttered only when green lands beside pink. Probably uttered by green.

The reactions of the birds so far would indicate that CR is primarily an expression of escape, that Hflff is more aggressive than CR, that both CR and Hflff are probably low intensity, that St is probably fairly high intensity and may contain an appreciable attack component, and that "Greetings" are probably inhibited by a strong escape tendency.

Sudden brief flight 10:00 a.m. Aerial chase. Can't see who started it or who is involved. Quite silent. Breaks up immediately. Birds behaving as before. Red still bowing. But no CR or Hflff. Occasional slight gaping, but this is probably panting. Tail fanned. Legs flexed (knees visible).

White crown stripe just barely visible (if at all)



Low Bow posture by Red

Not usually as extreme as this (but probably sometimes more so)

High bow posture is essentially similar to St except that the feathers of the belly are not smoothed flat in the high bow as they are in the St

Behavior of birds still essentially unchanged 10:15 a.m.

I think a "greeting" is uttered every time green joins pink.

One of the birds (Red, I think) occasionally utters single ECN-type note. Doesn't seem to lead to anything.

Pink (me) supplants red, without obvious signs of hostility 10:25 a.m.

I think red is low-man in the hierarchy, but it doesn't seem to be too upset by it all.

Yes, it is definitely red who is uttering the ECN's



Front view CR

Atlixpetes, Feb 4, 1962, IV

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One of the green & pink pair suddenly picks up large leaf and starts to fly around with it!!! Silent. Then drops leaf 10:45

Then does it again & again. It is green! Each time eventually flies to perch where red is. Red flies away each time. Then green stands. Usually in more or less extreme st. Still holding nest material in bill. Make occasional very rapid & brief downward bowing movements. Then flies away & drops n.m. All quite silent.

Legs are extended as much as possible in st. (This is probably another difference from the usual high low posture)

(Correction. One the n.m. picked up by green was a tuft of dry grass, not a large leaf.)

10:55. Green starts hopping after pink, on ground and in bushes. Very rapid. "Quetting" each time green lands. This is beginning to look hostile, purely hostile! Develops into something very like a chase.

Then green hops after red. Green does brief st. each time it lands during this! Pursuit slower than previous pursuit of pink. Silent.

Then green goes back to hopping after pink, with "Quettings"!

Pink has kept CR all the time it has been in this cage.

Green continues assuming st. Postures brief (usually with brief downward bowing movements) while all 3 birds feed on ground. Somewhat difficult to tell just who these are directed to, I rather presume Red. Don't seem to provoke any response 11:07.

Go back to following pink. Silent. No display. Pink escapes each time green comes close. Rapid flight. After a while pink seems to get tired. Doesn't always flee when green approaches. Then green just stands near pink, making more or less irregular bowing movements, with

Atlapetes, Feb. 4, 1962, II

(57)

out display. But chase always resumed again shortly

Leaving 11:15 a.m.

After leaving, I gave instructions to have pink taken  
out of the cage. Put in a large cage with other species.

Atlapetes, I

February 5, 1962  
Barro Colorado

Arrive in front of green & red cage 6:30 a.m. In blind  
Still too dark to see much

Birds obviously frightened. Clinging to wire on far side  
of cage. Can they see me? Then start to relax a little 8:40.

One or both uttering occasional ECN-type notes.

Birds not usually together

Interrupted by busy collecting food debris 6:48.

Both birds still greatly pre-occupied with their bands.

One more or less following the other. Hopping slowly. No display.  
Looks as if they are more or less friendly. Then both sit. Then one advances  
toward the other (probably reversing original following role).

The other bird retreats immediately. Rather rapidly. And utters a long  
"greeting" phrase as it does so! Quite definite. This would suggest  
that "greetings" may contain an appreciable escape component.

I shall call the "greeting" phrases "WGL" from now on.

This turns out to be pink and green in the cage! No wonder  
that they weren't behaving as expected!!

Take pink out, put red in 7:30 a.m.

Atlapetes, Feb. 5, 1962 II

(3)

Red flies to coverage. Does a little bowing. Thriff (I think)  
but no CR. High bow posture slightly St-like (beak and head nearly  
vertical, but not body). Queen bowing about 5 ft away. It is high  
bow postures are much more thoroughly St-like. No Thriff. Both  
birds quite silent

Body sometimes much  
more nearly horizontal



Queen's St-like high bow post  
ures rather curved and elegant -  
cooling. Neck perhaps not great  
ly elongated, but front part of  
body looks long.

legs not straightened

This goes on for a long time. Still continuing 7:40.  
Red's body plumage is not sleeked down during the bowing, but the  
whole front part of Queen's plumage is sleeked down very flat during  
the bowing.

Queen seems to be relaxing now 7:45. Less sleek starting  
to peck at her wing in the intervals between bowing.

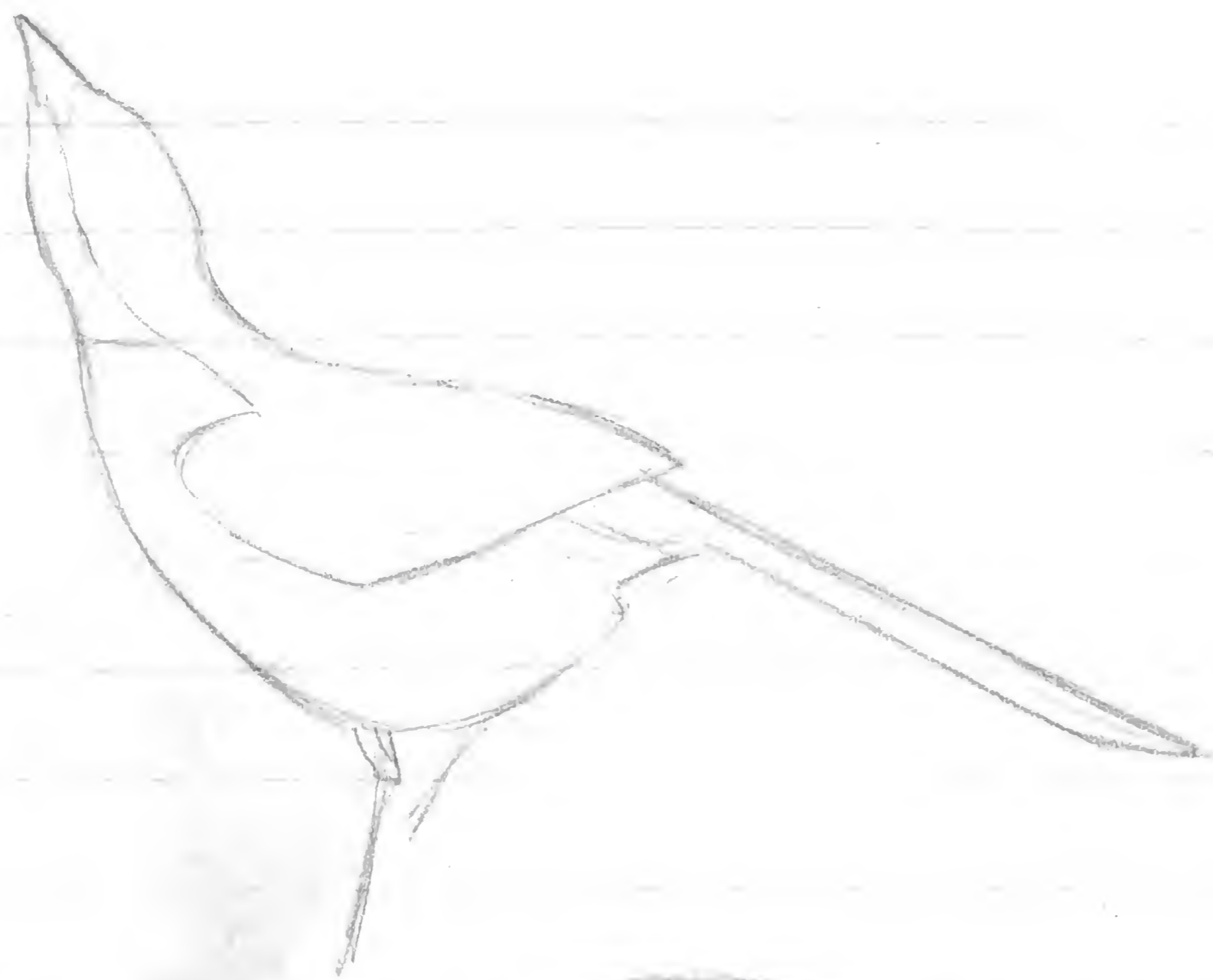
Down phases of Queen's bowing always much quicker than  
high phases

Still not much change 7:55

Red has little or no Thriff now in all or most of its bowing

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Low intensity  
high bow  
posture



One type of  
low-bow  
posture  
(unusual)

Head usually nearly horizontal

8:00 a.m. Green picks up n.m. (straw) and then continues bowing as before in corner!! Drops it almost immediately, and still continues as before.

8:05. Green occasionally supplants red. Red always retreats immediately. Green stands, bows as usual (and st. like in high postures). Then goes back to old station and continues as before.

Green picks up n.m., supplants red, continues bowing, with n.m. at site where red was bowing before being supplanted. Then flies away. Still carrying n.m. Circles around red, at distance of 2 or 3 ft, still bowing & carrying n.m. Then red down to feed. Green follows. Then both animals back to old sites. Behaving as before. Green has lost n.m. somewhere.



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(65)

Still continuing 8:30 Green still occasionally supplanting red. Animals still very active all the time. Including red, who continues bowing trades when not feeding or being supplanted.

Red's bowing seems to be almost or completely unritualized in form.

Animals disturbed when food brought 8:37, but revert to old behavior almost immediately.

Red tends to have tail more fanned than green during bowing.

I hear occasional ECN-type notes during this behavior, but can't tell who is uttering them. I think it is red. As red doesn't seem to be responding "positively" to green, this may be an indication that ECN's are purely hostile.

Green repeatedly supplants red, 8:43. Carrying n.m. in bill. Does brief bowing, sometimes, between supplants, but most supplants follow too rapidly one right after the other to permit this. Frequency of ECN's increases during this change. Red seems to give them just as she escapes. Then birds slow again. Behaving as before.

Then supplanting starts again. This time green not carrying n.m. Then he does pick up n.m. and continues supplanting. Red utters ECN's while escape. Also when bowing between escapes. 8:50. Green does little bowing between supplants while carrying n.m. And the bowing movements he does make are not extreme. Red's plumage is more sleeked (all over) when she bows between supplants than at other times. Interestingly enough, no CR.

Things quieter now 9:00 a.m. Red on perch. No bowing. Green on ground, feeding.

Then green up. Back supplanting red. Again and again.

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(66)

Both with and without n.m. Still bows vigorously between suppl  
ants when not carrying n.m. 9:10.

Twice, when chase is most rapid, ♀ escapes with ECN's whi  
ch might be transcribed as "3 eeeeeee aah". Latter part of each  
note slightly HAC-like.

Does it again 9:12. Obviously very high intensity. Good evid  
ence that ECN's are hostile.

♂ apparently not trying to actually attack red during  
these chases. But his chases do seem to be getting gradually, if irregular  
ly more rapid & violent. Tempo of red's ECN's also increasing.

Quiet again. Birds feeding 9:22. Then rest, on ground.

Leaving 9:35 a.m.

Atlapetes, I

April 15, 1962

Cerro Punta

Arrive area where Yellow-throat was heard DCing last  
year (half way between Cerro Punta and upper pasture) 6:00 a.m.  
Just beginning to get light.

No DCing today.

Flush a pair of Yellow-throats 6:30 a.m. Fly away  
silently. Then sit in bush, looking at me, making flight int. moves.  
Silent. No CR or Hflff. Then disappear.

The Yellow-throat is probably one of the species which DC's com  
paratively rarely. Like the Yellow-rumped Tanager.

Atlapetes, I

April 16, 1962  
Cerro Punta

Working near upper pasture this afternoon.

5:50 p.m. Suddenly flushed a whole family of Yellow-throats, including 2 adults and 2 or 3 young (with short tails and yellow at the gape). Birds hopped and flew about nervously in the bushes. Uttering lots and lots of thin, high-pitched, moderately loud "Tseeeeeee" notes, intermingled with a few slightly different "Tseeeaaaah" notes. Two types of notes intergrading. Slightly variable in length. Quite like ECN's, but slightly hoarse. Some with a slight but definite rattle undertone. (It is possible that some of the ECN's I have heard previously were also slightly hoarse, but, if so, I certainly overlooked it.) These notes were certainly uttered by at least one adult and one young bird (probably by all the birds of the group). The adult(s) had extreme CR, moderate fluff, and moderate fluffing of the underparts throughout the period the notes were uttered. But no Bowing or St!! The young bird(s) did not perform any ritualized movements or assume any ritualized postures while uttering the notes. Just sat looking generally fluffy (like the young birds of almost all species in almost all circumstances).

The birds were certainly far more conspicuous during this performance than I have ever seen before. Notes nearly continuous for almost 5 minutes.

These hoarse ECN's were quite reminiscent of the "Tseeeeee aah" notes of Brown-capped Bush-tanagers.

This is another, independent, indication that Atlapetes is

Atlapetes, Apr. 14, 1962, II.

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very closely related to Chlorospingus

These patterns are probably perfectly intermediate between the HAC patterns of tanagers and the thin "e-e-e-e-e" type hostile notes of Eubleria spp. described by Andrew.

In the midst of this whole performance, one of the young birds uttered a single, rather weak, "Tuck" note. The only note of this type uttered. Not accompanied by special postures or movements.

The birds fell absolutely silent, very abruptly, as soon as they got out of sight of me (when they flew over a dense "ledge" of tangled vegetation about 20 ft away from me).

This incident is another indication that escape is as strong as, or stronger than, attack when ECN's are uttered.

Atlapetes, I

April 18, 1962

Cerro Punta

Working at Lewis's place this afternoon

3:40 p.m. Suddenly come across what seems to be a boundary dispute between Yellow-throats. 2 or 3 birds. Uttering lots and lots of ECN's. Nearly continuous. Notes might be transcribed as "Z-e-e-e-e-e" or "W-e-e-e-e-e". Only slightly buzzy. Also quite a lot of short sharp notes, almost exactly intermediate between "Trit" and "Tuck". These HN's sometimes single. More often in brief series, 3 (possibly 4) notes at a time. These brief series so accelerated as to form real brief R's. Reminiscent of R's of Perisoreus in sound.

I think the R's were usually or always given by birds hopping from perch to perch, but possibly also by birds which were momentarily stationary. The birds also did a good deal of Bowing during this

Atlapetes, Apr. 18, 1962, II

(49)

incident. Rather irregular. Not including real St. Accompanied by at least some CR. Couldn't see if Hiff also present or not. Many (at least) of the ECN's must have been uttered during the Bowing.

The behavior almost certainly not provoked by me, as I heard the ECN's long before I got near the birds.

Again I was surprised by how conspicuous the birds were when uttering ECN's. It is obviously significant, therefore, that this dispute "attracted" one Chestnut-capped Bush-finch and one Brown-capped Bush-tanager!

The Chestnut-capped Bush-finch just hopped along the ground and through the shrubbery in the direction of the disputants. With extreme Hiff and CR, and a little irregular Bowing. Apparently quite silent.

Atlapetes, I

April 19, 1962

Cerro Punta

Working along ravine at upper border Claves this afternoon. 3:05. Came across 2 or 3 Yellow-throats. Uttering lots of ECN's. With lots of Bowing. No extreme St's. Little or no CR or Hiff. Perhaps reacting to me.

Atlapetes, I

April 20, 1962

Cerro Punta

Working along ravine just above Claves this afternoon. Flushed a single Chestnut-cap 5:58 pm. The bird utters a ECN's as it bursts from the undergrowth, in flight. Quite like the

Atlapetes, Apr 20, 1962, II

(70)

ECN's of Yellow-throats, but not at all hoarse or buzzy. Then perches on twig about 15 ft away. In crouch. Making Bowing int. moves. Also lots of TF's. Few or (more probably) no WF's. At first utters series of "Trit" Notes. Then silent. With extreme CR and Shiff throughout. (Since does a general shake-out of whole plumage. (It has been raining here recently - so these shake-outs may have been autochthonous.) Then flies to another perch about 10 ft farther away. Again perches in crouch, with Bowing int. moves, TF's, extreme CR and extreme Shiff. Once more general shake-out of plumage. Quite silent. Then flies off and disappears.

This incident would suggest that ECN's are higher intensity than "Trit" Notes, and that "Trit" Notes are higher intensity than silent CR and Shiff. Probably all produced when escape stronger than attack.

Atlapetes, I

April 21, 1962

Cerro Picuta

Working along upper edge of llanos and ravine this morning.

At 6:30 a.m., there is an outbreak of high thin songs which sound as if they might be uttered by Chestnut-capped Bush-finches. Phrases like "Ja-zee-zee ta-zeeeee-zeeeee", "Ja-zee-zee-zeeeee" etc. Can trace the birds singing. Some apparently in alvarado, near ground. Others moderate, high in trees.

These songs might also be by warblers. But I don't know which species.

Burst of songs over within 5 minutes.

6:25. Another burst of song. Absolutely similar quality. Come

Atlapetes, Apr 21, 1962, II

(71)

ing from absolutely typical Chestnut-cap habitat. Obviously single bird. Phrases all "Ja ta-zeeeee zeeeee"

Then followed by burst of three high-pitched Twitter or WBL.

Quitting ??? followed immediately by more song phrases as before.

Then more quills Twitter and song phrases. Then more song phrases alone.

Then more mixture song phrases and Twitter. Then rounded

as followed by single bird, first a song phrase, followed immediately

by a Twitter. Resemblance to Blue-black Grosbeak ??

7:10 Come across a single Chestnut-cap. Obviously very nervous

about me. Silent. Does lots of Bowing (high position much less extreme

than in my drawing of last year). With extreme CR and Tiff (at first

gradually declining later). Also lots of TF's. All extremely U-D and

extremely lateral. All with Jun. (Tail somewhat fanned at all times

but more so during the TF's)

Atlapetes, I

April 22, 1962

Cerro Punta

Working at level of Cerro Punta this morning (Forest site)

6:30 a.m. - Single Chestnut cap singing steadily. Repeating

identical phrases "Ja-zeeeee-ah-ta-zeeeee" This time I can

actually identify the bird, altho I can't see it well. Uttering phrases

while feeding on ground. No wing movements. Little or no CR and

Tiff.

The "zeeeee" sounds are slightly hoarse. Does this mean they

are closely related to EEN's? Does this mean that the songs of these

species are at least partly hostile ??? If so, their evolution is somewhat

problematical!!





Atlapetes, May 19, 1962, II

(73)

some notes uttered while bird is actually hopping.

Song is very prolonged. Bird still uttering notes (although somewhat less frequently on the average) 6:20 a.m. Then stops a few seconds later.

None of this song seems to have provoked any response from other birds.

6:37 a.m. Same area another single torquatus singing. Notes even more variable than those of first bird. "seeeect ta-seeect seeect seeect . . . ." This time I don't see the bird until it flies away (frightened by an Indian); but it was obviously perched near the bottom of a thick hedge during the song.

6:40. Same bird starts again "seeeect - ut seeect - ut seeect - ut seeect - ut seeect seeect seeect . . . ." Again hidden from my sight plus again when frightened. Obviously single.

Come back to area where I first heard torquatus singing. 8:40 a.m. Apparently same bird still singing from a bush a few feet away from where it sang at dawn. Song composed of "seeeect" and "seeeect ut" notes alone. Uttered in irregular bursts of 3 to 10 or 12 notes, rather than continuous series. Unfortunately bird quite hidden.

This would suggest that "ta-seeect" type notes may be higher intensity than "seeeect" or "seeeect - ut" notes.

Allapetes, I

May 20, 1962  
Atlixco

Arrive road place 5:42 a.m. Not quite light yet.  
refinucha songs begin 5:45. At first all "Teeooooo"  
Teeo Teeo Teeo" type

Then I hear a few abbreviated "Teeooooo Teeooooo" types

Then one "complete" song with R 5:52 a.m. Then a few more. All by same bird.

So the songs of the birds here seem to be just the same as on previous years.

Other birds continue songs without R after first bird has begun to utter "complete" songs.

6:05 a.m. One bird seems to be uttering songs commencing "Keeyaaah hoo kaah ha"

Most birds still not uttering R's at end of song 6:07  
6:28 a.m. Listening to one bird who utters both "incomplete"  
etc "songs without R and "complete" songs with R. Usually in alternation!  
In both cases, the second whistle, the first short note, also tends to be higher pitched than the first, long note. Just as in the days  
and of "incomplete" song immediately above (and the latter were certainly

Atlix, May 20, 1962, II

(75)

uttered by a different bird).

Walking near town of Hloa this afternoon (on far side of Pichu-  
ba).

4:30 pm See a single refumica Perched on twig making fly  
ing int. movs. With CR. Uttering single "Tut" or "Dit" Notes. Very  
soft Then joined by mate. Don't see or hear greeting, if any. Then  
one bird feeds, while other sits. Feeding bird sometimes close to mate,  
sometimes 10 ft away. Throughout the period of feeding, the feeding  
bird utters nearly constant "Tut" or "Dit" Notes. Comme ça:  
"Dit dit dit dit-dit dit di-dit dit dit dit di-di-dit dit  
dit-di-dit . . . ." These notes would appear to be real locomotory  
notes. This may be another name for the BCBT (I might  
stress the fact that the birds obviously were not alarmed by me during  
of the period these notes were uttered.)

Eventually the birds move off, but I can still hear them utter-  
ing "Tut" or "Dit" Notes 4:48 pm

I shall call these notes just plain "CN"s from now on.

Birds back in sight again 4:52. Behaving more or less as before.

One of them catches sight of me and hops away. I think it raised  
its crest more than usual, in extreme CR, as it left. The CR of this ap-  
pear is probably also an indication of escape.

Around 4:00 pm. this afternoon, I was walking rapidly al-  
ong a path above Hloa, in a heavy rain storm, when I suddenly  
heard a long burst of torquatus "seeeeeeet" and "sooooooet"  
notes. Didn't see the bird(s), but I think the notes were utter-  
ed by 2 birds, fairly close together.

Later, around 5:50, when we were driving back to Santa,

I saw a single atlapetes hopping & feeding along the side of the road. I immediately told Garcia to stop and hopped out of the car. As soon as I got out, I heard that the bird was uttering "seeeeeeet" and "seeeeeeet" notes. I don't know if it was uttering such notes before hand, or if they were a reaction to my appearance. In any case, I got a very good view of the bird. It had CR all the time it uttered the notes. Quite extreme, like the CR of the Orange-billed Sparrow sketched in my notes — not like the CR of atlapetes during bowing described a couple of years ago. No shyff. No other special movements or postures (except Arching, of course). As I stood still, the bird gradually hopped away, gradually relaxing. Fell silent and stopped CR.

This might suggest that the "seeeeeeet" and "seeeeeeet" notes of this species are at least partly hostile. Is this premature? Is it also true of the "songs" of other spp. of atlapetes?

Atlapetes, I

May 21, 1947

Paduichia

Working near Lloa this morning. Arrive 5:30 a.m. Still quite dark.

? Just at 5:30 there was a burst of DC. By at least 2 birds. One uttering "Kee" or "Fee" notes, with an occasional "Kee" interspersed. The other uttering "Kee" or "Fee" notes and "Kee" notes in regular alternation. "Kee-fee Kee-fee Kee-fee Kee-fee".  
 ? DC stopped within a couple of minutes. I think it must have

Atlix, May 21, 1962, II

(77)

? Seen uttered by birds which were awakened by the arrival of  
my car. It was followed by a period of silence, during which  
no similar notes were uttered.

? All these DC Notes were very similar to (possibly identical  
with?) the whistle notes during the ordinary "song" of ufinucha.  
I think they must have been uttered by ufinuchas.

? 5:34 a.m. I go back to car to get my tobacco, and  
make some noise in so doing. This seems to provoke another burst  
of DC. Again subsides into silence after a minute or so.

? I stick around area until 6:00 a.m. (when it is fully light)  
Don't hear any regular ufinucha song in exact areas where DC  
came from.

But there are ufinucha singing some distance away.  
Watching one perched in tree. All songs without R. Some phrases  
"Tee-yoo kuli-kuli-kuli." Others "Tee-yoo keeee kuli-kuli-kuli."  
First 2 notes of latter quite like DC Notes heard earlier. Bird sitting  
in ordinary posture. With CR. Tail horizontal. No wing movements.

7:00 a.m. Come across 2 or 3 ufinucha (possibly some pair  
observed yesterday). Feeding & hopping along hedge. Utter lots of  
lots of "cw" in both single and in series when they are obviously nervous  
about me. Is my interpretation of this pattern wrong?

One, when one bird came close to another, one of them apparen-  
tly uttered harsh, hoarse, "Zee-ee zee-zee" HAC?

Then another ufinucha singing 7:25. Again no R.

Atlapetes, I

May 22, 1967  
Pichincha

Working in same place as yesterday morning. Arriving

5:25 a.m.

Find the whole area covered with indians & cows!

But the DC still begins immediately. One bird.

Uttering "Keeyoo"s. At first with long intervals between notes. Then gradually accelerating. Bird moves about from place to place in hedge. Gradually begins to differentiate notes. For a while, every 3rd "Keeyoo" is lower in pitch than the others.

"Keeyoo keeyoo keeyoo keeyoo ..."  
keeyooo

Then falls silent for a few seconds. Then it starts again. At approximately same time, 1 or 2 other birds begin DC. More or less as yesterday. One bird repeatedly utters "Kee kee keeyoo kee kee keeyoo kee kee keeyoo ...". All birds moving about during DC. I shine flash light on areas where sounds are coming from, but can't see a thing. I.P. birds are well hidden in hedge. This is reminiscent of Yellow-throat.

After DC has continued for some minutes, at least two birds begin to interject doublets of short descending notes. "Keeea keea". Reminiscent of short notes in ordinary day song of ufinucha. But the DC does not break up into phrases at the same time.

After about 5 minutes, the DC stops. It is not followed immediately by ordinary day song of ufinucha. Birds which had been

Atlapetes, May 22, 1962, II.

(79)

DCing apparently fell silent. If this DC is uttered by refumelia, then the birds probably start to feed immediately after DC.

(I might add that I am sure that this DC is not uttered by the local thrush. The birds did not sound like thrushes while moving about. And the early song of the thrush began just after the DC stopped, and was quite different in quality.)

5:58 a.m. It is now quite light. And at least 1 refumelia has begun to utter day song in the hedge from which the DC came (although not exactly in same place). Four songs with R. Then all without. Bird seems to be moving down toward where I watched a bird singing yesterday. Yes! It is now, 6:05, reached area where I watched it yesterday. All its songs still without R now. Most songs composed of 5 notes. Only a few of 4.

It looks as if several refumelia sleep close together in same hedge here. Then move apart to own territories to sing there. (The DCing bird I followed most closely was moving in the opposite direction from this singing bird here.)

Singing bird flies away & shuts up 6:09 a.m.

This bird certainly appeared to be completely unmated.

6:13 a.m. The same or (more probably) a different bird singing further away. Peculiar song, No R, but extra notes added at end. Phrases essentially double. "Tee-oo kee-kuh-kuh-kuh keeee-  
kee-kee"

Atlapetes, May 22, 1962, III.

8:35. Suddenly flush a single refringens. Very close. Hops, crows, & flutters, irregularly. With extreme CR and definite TJSS.



Throat feathers seem to be short

It was quite silent at first. Then moved away. At this point it apparently uttered series of "Tuk" notes, in same rhythm as usual CN's "Tuk-tuk-tuk-tuk-tuk-tuk-tuk..."

Working near house in the afternoon

4:42 pm. Suddenly flush 1 or 2 refringens. Bird flies off uttering CN's in usual fashion. Probably also utters 2 or 3 then, high-pitched, plaintive "Sceeset" notes!!

5:50 pm. I can hear torquatus "Sceeset" and "Sceeset-ut" notes coming from area where I first heard such notes this year. Can't see bird, but it is coming closer. Then it moves away again!

Atlapetes, I

May 23, 1962  
Pchuncha

Working near house this morning.

5:50. A single torquatus suddenly begins to sing in hedge. All notes "Sceeset-ut" \_\_\_\_\_  
Repeating one night after the other. Bird moves along hedge. Apparently with CR. By 5:58, it is uttering more conventional "Sceeset-ut"s. By 6:00 am, uttering unmingled "Sceeset"s and "Sceeset-ut"s. Plus one "Ja-sceeset-ut"  
numm



Atlapetes, May 23, 1952 I

(8)

By 6:04 most of the notes are "Ja-reeeeeee" & some of the "Ja-reeeee" is very hoarse toward end. Others less so.

7:15 a.m. See another single torquatus singing. Most notes "Ja-reeeee" or "Ja-reeeee-ut"s. It is possible that these notes were provoked by my appearance, but I doubt it. At least, the bird continued uttering same notes after it flew some distance away from me. In any case, it did not have CR at any time!

(I also noted that this bird had white on the center of its breast and belly, as well as on its chin, so it is definitely torquatus.)

Atlapetes, I

May 24, 1952  
Pulimcha

Working in forest this morning.

A torquatus begins singing by 5:13 a.m. (long "Ja" when this (quite as long as ordinary "Ja-reeeee") "Ja-reeeee" & "Ja-reeeee-ut"s).

This is the same area where I first heard a bird singing this year. (And bird seems to be singing from exactly same perch.)

7:25 a.m. Come across pair of refinaria feeding in bridge. Apparent, undisturbed by me. Uttering notes absolutely, constantly while moving around. Lots of rather soft "Tut"s or "Tut"s, both single and in short series. Apparently ordinary "CR"s also lots of soft, rather hoarse "Seee" or "Zee" notes. Two types of notes seem to intergrade. Birds also occasionally utter "Zee-woo"s. Usually single. Sometimes 2 or 3 in series. They sounded almost as if they might be intermediate between "Tut"s and "Zee"s. Couldn't see very well what the birds

Atlixites, May 24, 1962. II

(82)

were along with the different types of notes.

Once one of the birds hopped out of the hedge, saw me, uttered one "Soil" Note, much louder & bolder than the "Soil" the birds had been uttering inside the hedge, and then hopped back.

May 25, 1962  
Atlixite

Arrive usual place 5:28 a.m.

Rufinucha apparently DC song. Mostly "Kee" or "Kew" notes. With an occasional "Kee-yoo" or "Kee-yooce" interjected.

Every once in a while a series of short descending notes (also) interjected. "Kew-kew" or "Kul-kul-kul".

Once a series of "Kee-keeyoo-kul-kul-kul" interjected. Almost typical "day song".

Too dark to actually see the birds.

General silence falls 5:38 a.m. Then a new episode of DC, less intense than before. Then silence. Then another slight burst of DC. Then silence again 5:42.

Just absolutely typical "day songs", with R, heard 5:45 a.m.

7:15 a.m. Hear a brief burst of what is a Loquax typical Loquax song. But don't actually see the bird.

Working near Hono in the afternoon.

5:00 p.m. Come across 1 or 2 Rufinucha. Bird was quite silent.

Atlapetes, May 25, 1962, III

(3)

before it saw me. Then uttered "Tut"s as usual when I appeared. Then moved around bend and shut up immediately. So "Tut"s may be hostile (SNN's?) after all.

Atlapetes, I

September 18, 1962  
Telefonico #1

This mountain seems to be loaded with Atlapetes. At least three species.

① Chestnut-capped. I saw a single bird of this species here, above the station, at 11:15 a.m. Flew over. Silent. CR, high off and may flight int. woods. Possibly trailing after a mixed flock in trees (flock included Black and White Warbler, some Redstarts, others).

② Unidentified form, no. II on list. The one that looks like leucoptera near Quito, but is darker below and has black moustache. I have only seen this with mixed flocks. Always, I think, in pairs. See notes on Diglossini. I shall refer to this form as "PL" for the time being. ~~scientific name is~~ Scientific name is

③ Unidentified species, no. VI on list.

I first saw this species near Mucurubá and Cacate yesterday in the relatively dry low country.

I shall call this bird "WM" for the time being. ~~scientific name is~~  
Scientific name is

A single bird was seen in a bush at the edge of a dry corn field, near Mucurubá, yesterday at 6:10 a.m. Uttered lots of "Tuck" CN's or SNN's. Also a few soft, thin, song phrases

Atlapetes, Sept. 18, 1962, II.

(84)

More or less comme ça: "Tuck tuck tazeezeezeezawa"

The main, terminal, part of this song was appreciably softer than the CN's or SHN's apart from the song (and probably also softer than the introductory "Tuck"s).

A pair was seen near cañute later in the morning. Utters "Tuck"s and nothing more.

This morning I saw a single bird of this species in a bush slightly above the station here. Apparently nervous. Performed lots of flight int. movs. Also uttered lots of their soft "seeet" notes, PN's? Then flew into another bush some distance away. Uttered "Ja seee see see srrr" as it landed. "Greeting" song?

Later in the morning I saw another pair a little further up the mountain. One uttered "Tuck"s. The other was silent.

Atlapetes, I

September 21, 1962  
Páramo La Negra

4  
4  
4  
4  
4  
Came across a presumed family of PL's this morning at 7:00 a.m. At 9350 ft, in alpine scrub. Associated with a single Fox-belly Pacilotteropus for as long as I watched them. Associated with a single Fox and a single Andean Sparrow more briefly.

The PL's hopped about very actively. Uttering lots of "Tuck"s, hard and relatively high pitched (almost "Tsit"s or "Tuck"s). One or more of them also uttered lots of "song". Each song very complex. Beginning with a formless, jumbled, chatter (too loud & hard to be called a Warble. Followed by R. This, in

Atlapetes, Sept. 21, 1962, II

(85)

turn, followed by 3 or 4 (less frequently) 4 "Feeoo" Notes. Sometimes was R and "Feeoo" repeated in a single song. Sometimes the "Feeoo"s were uttered before the R, but this was relatively rare. Songs usually with CR. In loco or pre-loco postures.

(I might add that once, a few days ago, when I came across some PR's unexpectedly, one bird went into a silent, moderately extreme, "alert", high-crow-like posture (quite like the corresponding posture of the Chestnut-cap) with CR. No display or actual Bowing.

It is interesting that the song of this species is so much like that of rufinucha, while the song of WM is so reminiscent of the Chestnut-cap, as both the PR and WM seem to be almost identical with rufinucha in shape and ordinary actions (although both may be more markedly territorial in habits).

Atlapetes, I

Sept 22, 1962

Road to La Azulita

Seen several WM Atlapetes around here this morning

7:10 a.m. 7600 ft. See what is probably a single WM Atlapetes with mixed flock, including 1 BCBT, and unidentified warblers (5) and flycatcher (5). Bird first seen in tree, then went down into low shrubbery. If my identification of this bird was correct, its movements and attitudes were remarkably reminiscent of Chlorospingus while it remained in the tree.

8:00 a.m. 7500 ft. See pair of WM's (definitely identified) in thick but "uncovered" shrubbery. Apparently alone.

Atlapetes, Sept. 22, 1962, II.

(86)

9:55 a.m. 14600 ft (same place single bird seen earlier)  
Flush a pair of WM's from a thicket. Both birds utter "tseet" notes.

This species does not seem to be as frequently associated with mixed flocks as is the PL Atlapetes.

Atlapetes, I

September 23, 1962  
Paríamo La Negra

Approximately 7:00 a.m. 8700 ft. I suddenly saw a single PL unique. Song quite characteristic. "Tseet fecoo fecoo fecoo"



I had heard similar songs (lots of them) all morning, ever since before sunrise, without being able to see the unique birds. Some variations. Very occasionally a 4th "fecoo" is added. More frequently the song is abbreviated. When abbreviated, the first "tseet" is usually the first note to be dropped. Then one (very rarely two) of the "fecoo"s. None of these songs was associated with R (or chatter, as far as I could tell).

(So the R and chatter heard a couple of days ago must have been largely or completely hostile.)

The bird actually seen unique this morning was perched

Atlapetes, Sept. 23, 1962, II.

(87)

on an exposed branch on top of a tree. I could only see it front view, but it seemed to be in much the same posture as singing rufinucha. Head pointed diagonally upward. Some CR.

The other birds heard singing were in underbrush. Throughout this whole area of thick scrub and scattered trees well hidden.

9:35 a.m. Suddenly flush a single PL. Flies into very low scrub. Utters "seet" notes in flight and after landing. Are these notes alarm? Bird also utters "Tut" notes after landing. Then it flies back. Perches exposed, only a few feet from me. Standing in pro-loco posture. With CR. Utters more "Tut"s. So perhaps "seet"s aren't alarm after all.

This species seems to have a longer crest than rufinucha. But crest is rounded (in profile) during CR.

Atlapetes, I

September 24, 1962  
Piedra de la Negra

Same place as yesterday 5:50 a.m. Hear first PL songs. Rather more varied than songs heard yesterday. First song heard "feco feco feco". This followed by more elaborate phrases. "Treet-sa-seet seet" "Treet-sa-seet seet-sa-seet" "Treet-sa-seet feco feco feco" etc. I.E. It is the first part of the song phrase that is most elaborate at dawn. Can't see the bird singing. Low hidden in shrubbery. "Treet-sa-seet feco feco feco" most common phrases.

Atlapetes, I

September 23, 1962  
Barro Colorado

Same place as yesterday. Pair of PL's feeding by themselves. One flies to join the other. Joining bird utters soft, high, then "warble" (partly compound of "ta-zee-uh-zeeeee" type components), which changes gradually but rapidly into R, and is then followed immediately by 3 "Teeoo" Notes, as it comes in. All this as greeting!! Without CR. Then, as the birds continue to move through scrubby, one or both utter(s) more "greetings" whenever they come close to one another. Extremely variable. Sometimes "Warble" alone. Some times Warble, followed by R alone. Sometimes Warble - R - Teeoos as before. Sometimes R followed by Warble!!

Then birds fly to join flocks including Bantherus II and Chlorophona. 8:00 am.

g  
g  
g  
g  
g



Alert Posture with CR

Chin white, breast & belly gray

9:05 Come across what is obviously the same pair of PL's, now feeding by themselves. Still "greeting" constantly. Much as before. Just noticed one more type of variation Warble - then high trill "Sreeeeeeee" - ordinary R (low & wooden) - Teeoos. This



Atlapetes, Sept. 25, 1962, II

(89)

Full obvious intermediate between "screeeee" or "zeeeeeee" of Warblers and ordinary R.

The Warblers are often rather "pumping". Quite reminiscent of Pelliophonus.

This is by far the noisiest bird-funk I have seen, except for Pelliophonus. Obviously not coincidental that it plays same vocal role as latter.

Atlapetes, I

September 26, 1962  
Paraiso La Negra

One bird starts singing this morning by uttering lots of phr. ans like "Tucet-ra-weet-weet". This is obviously first half of "complete" song. It is only about 5:58 that this bird starts to add "Teeoo" notes to song.

Walking along road 7:15, come across same pair of PL's that were so noisy yesterday. Just as noisy today, in the same way. Then realize that there is (are) 1 or 2 more PL's nearby, also uttering same "greeting" - hostile calls. General hubbub. Coming back 7:30, come across 1 or 2 PL's same place. Very quiet. Utter "tacet"s, no war. So the noisiness of this species seems to increase near boundaries of territories, in same way as in Pelliophonus. Presumably serves same function.

Atlapetes, I

September 29, 1962  
Páramo de Guasca

5:35 a.m. In area where Taps are common. Alpine scrub just below páramo itself. Hear PL Atlapetes song. Rather disorganized when it starts. First attempts consist of nothing more than 2 or 3 "Teeoo"s. Then the first part of the complete song was repeated, by itself, several times, at irregular intervals. Only after this, were typical complete songs uttered.

As a result of these observations, and earlier observations near Mérida, it is obvious that this species does not have any DC patterns as such.

7:50 a.m. See (another) pair of PL's. Silent, except for "CW"s. Alone when first seen. Then a Tap appeared briefly in a nearby bush and then disappeared again.

Then, at 9:15, I came across the brilliant and varied mixed flock described in today's notes on the subject. This included one new species of Atlapetes (which I shall call "PR"), no. XIV, another new species which may be Atlapetes, no. XV, and, possibly, PL. A pair of the first and third, and three of the second.

I shall mark PR ~~XXXX~~ Its scientific name is

When I saw the PR's this morning, against the light, they appeared to be black above and yellow below, like rupina cha but with the crown stripe yellow in front and white behind.

Atlapetes, Sept. 29, 1962, II.

(91)

The PR's are the birds that utter the "wren-like" song mentioned in today's notes on Diglossini. Rapid & powerful twittering or warbling. Usually begins "seeee seeee ...." After this, its structure is difficult to distinguish, but does include "Ja-seeee", or "Ja-seeee"s. The whole thing sounds very much like a speeded up version of the songs of such Atlapetes sp. as the Chestnut-cap and the WM. Almost certainly also contains more notes than the songs of the latter.

This afternoon, at a lower elevation on the road to Quaresa, I came across another pair of Atlapetes which were almost certainly PR's. In unimpaired plumage, 5:45 p.m. These birds appeared to have buffy fronts to their crown-stumps; and their upper bodies (but not their facial masks) appeared to be medium gray (rather than black) or even olive-gray. Was this apparent difference due to different light????

These birds uttered "seeeet" and "see-seet" notes while moving about, apparently undisturbed, and "Jack"s when obviously disturbed about me.

As far as I could tell, they were not accompanied by birds of any other species.

Atlapetes, I

September 30, 1962

Parque de Quaresa

Working in place slightly above yesterday's. Possibly slightly wetter than yesterday. In any case, it is raining this morning.

Near both PR and PR Atlapetes around 6:00 a.m. Can't see

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the birds, but they can't be far apart. Associating with one another?  
Finally get decent view of PR. Back and wings are slate  
colored. Not too very much lighter than facial mask. Front of crown  
is more orange yellow than underparts, but not rufous. Yellow  
underparts marked with dark on flanks.

This bird in mixed flock. Possibly serving as leader. With  
White-bearded Flycatcher, vireo, Myiobanes, parula, others.

This bird apparently joined by mate after a minute or so.  
Song as "greeting". Delivered from ritualized posture, without  
CR.

To my knowledge, I haven't heard the local PL's utter the  
very loud "greeting" patterns which were so common, at times, near  
Merula. With local form intermediate between Merula form and the  
Quito leucophaea in gregarious behavior?

Speak of the devil! Now, 6:36. Hear burst of what sounds  
like PR "Wahle" followed immediately by "Teeoo" Notes. The R.  
Can't see bird(s)

Still, these birds are certainly quieter, on the whole, than the Meru-  
la ones

The PR Atlapetes seem to be stimulated by the sound of  
D. laparomyza singing. Why? Why is it advantageous?

Later in the morning, still in same area, come across  
two mixed flocks or, more probably, the same mixed flock twice.  
Including pair of PR's, but no PL's. Almost certainly the same  
birds as in mixed flock yesterday. I am now beginning to  
think that PR's may play a definite, special, social role in the  
mixed flocks. SEE TODAY'S NOTES ON MIXED FLOCK

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KS. While in the flock(s), the PR's uttered a number of songs. Mostly "Warblers", like the ones uttered yesterday and earlier today. Apparently mostly as "greetings" (altho the birds were never really visible when these songs were uttered in the flocks). One burst of "Warblers" was definitely preceded by R's, like the R's of PL's. Others included definite R-components ("breeweeeee" type) within themselves.

The songs of this species are really remarkably warbler-like (but not much like the local Braulasterus) and diglossini-like. Is this necessary? Designed to attract the local diglossini ?????

Later in the morning, near Guasca itself, I saw a pair of PR's which were quite alone (except for Andean Sparrows, which were everywhere in the area, but did not seem to pay any attention to, or be paid any attention by, the PR's). This species is certainly not always a member of mixed flocks.

Atlapetes, I

October 24, 1967  
Mts above Bogotá

I watched a lot of PR's here today.

SEE TODAY'S NOTES ON BOTH MIXED FLOCKS AND DIGLOSSINI.

For approximately 15 minutes after 5:30 a.m., I heard a lot of songs which were similar to, but not identical with, the songs of the PL's in Venezuela. As I saw no PL's within area, I think the songs must have been uttered by PR's (altho I never saw the birds actually singing). The songs were comme ça:

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"Feeoo feeoo seeeeeee feoo"

Sometimes the "seeeeeee" was replaced by "seeeeeee"  
uuuu

During intervals of such song, I also heard an unvisi-  
ble bird uttering thin high-pitched notes in regular metronomic  
rate series "seeet seeet seeet seeet seeet . . . ."

These sounded exactly like PN's of lots of Atlapetes. Also uttered  
by PR's? A form of DC?

I might add that this species is more nearly terrestrial, or  
at least tends to stay lower in scrub, than the rufofasciatus near  
Quito. Also relatively long-tailed.

Thus song (?), proportions, & color pattern would all sug-  
gest that the PR is quite closely related to the Yellow-throat!

Atlapetes, I

October 30, 1962  
Boqueron de Jallo  
Western Andes

Saw a single gutturales hopping thru uncovered scrub here,  
by road, at 700 ft, 4:40 p.m. Utters "seeet"s. Apparently alone.  
Not associated with inds. of other species.

Atlapetes, I

October 31, 1962  
Provincia de Jillo

Heard what were obviously Yellow-throats singing this morning at dawn. No DC. One bird, probably the bird seen yesterday, repeatedly uttered soft phrases, each of which was more or less comme ça: "Z zzzzzzz zee-zee-zee." Other birds were heard to utter phrases which were at least similar (I couldn't tell if they were identical or not). The tone and loudness of all these phrases seemed to be identical with the corresponding features of the Yellow-throats in Livingston.

Still no sign of the local Yellow-throats associating with mixed flocks.

Atlapetes, I

April 4, 1963  
Near Jaruma

This morning, ca. 7:00 a.m., down in the humid region below Palca, 7000, I saw a single Bush-finch, apparently the "PL", A. robustus. Very similar to, or identical with, the PL's seen in the northern Andes. Rufous crown; black cheeks; a white moustache; a black stripe below the white moustache; light gray or whitish throat, merging gradually into medium gray of rest of underparts (is this darker than the underparts of PL's in northern Andes??); otherwise daisy or blackish above.

This bird was in an area of semi-open scrub, including low bushes, tufts of grass, and trees only a few feet tall.

Atlapetes, Apr. 4, 1963, II.

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I first became aware of the bird as it sang songs composed of a variety of notes. Most frequently "Whit wheeeeee"s. Also descending 3-note patterns: "Whit whit whit". These two types of

vocal patterns mixed apparently at random. But "Whit wheeeeee"s always more common than descending 3-note series. Every once in a while, the bird would also insert single "Wheeeeee" notes. Also inserted apparently at random.

These vocal patterns probably easy to homologize with patterns of PL's heard in other areas.

When I first saw the bird, it was apparently alone. Uttering vocal patterns while in scrub, 2-3 ft above ground. Usually while a perched immobile in ritualized posture. Sometimes with crown feathers smoothed down. At other times, with crown fluffed (so that the top of the head looked round). No CR. Occasionally sang utterances as bird moved through the bushes. Again without obvious ritualized postures or movements. Bird sang from a large variety of different perches, but all within a radius of 10-15 ft.

The bird sang steadily for a long time, with more or less irregular interruptions by periods of silence.

Suddenly, 7:20 a.m., I looked up to see that there were 2 PL's in the area. About 3 feet apart. One of them was definitely pulling at, obviously trying to pick up, a piece of n.m. (a long strand of grass)!!! Then, suddenly, one bird flew straight at the other. I think that the bird that flew was probably the ♂, and probably the bird that sang earlier. The bird that was approached was probably the ♀ and probably



Atlapetes, Apr. 4, 1963, III.

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the bird that had been playing with me. This was followed, immediately, by some "confused" chasing back and forth which I found very difficult to follow. Immediately after this, one of the birds began to display in somewhat the same way as the Yellow-throated Bush-finch. One bird went into extreme St. This was assumed by the bird immediately after retreating. I think the bird was the ♂ and/or the bird that had flown to the other. It commenced:



Very extreme.

Wings drooped (throughout all the St Postures, and the Low-Bow Postures — see below).

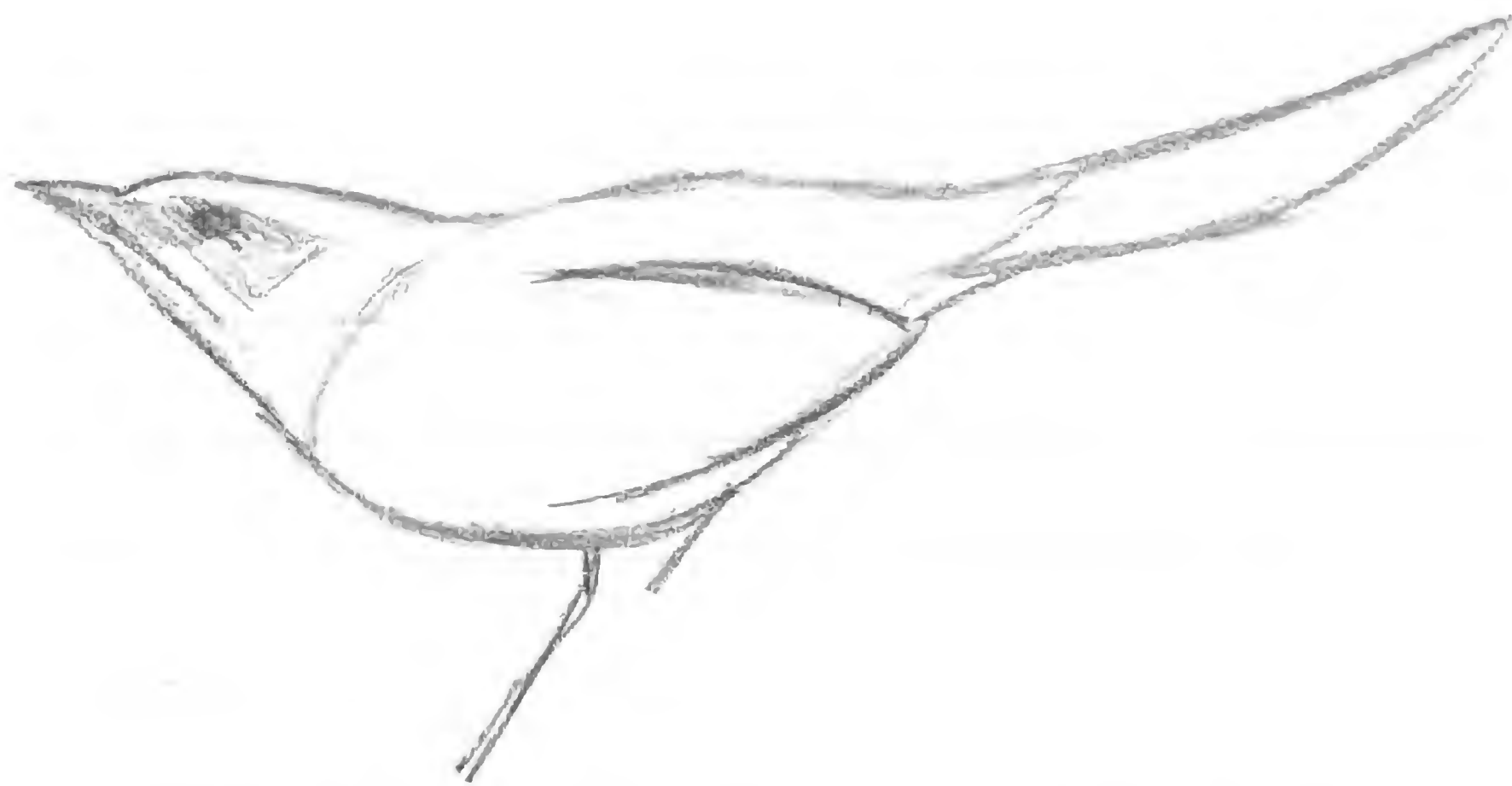
Tail widely spread (in all St Postures and also in all Low-Bow Postures).

The bird faced its opponent or partner in this posture. Revealing white throat — which was really very very conspicuous.

After the bird stood in this posture for some moments, it gradually came out of the posture, and started to move about, hopping from twig to twig. During this hopping, it assumed a more or less distinctive posture, which seemed to be a form of Low Bow Posture, with a trace of continuing BV, as in St. Commence.

Atlapetes, Apr. 4, 1963, IV.

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Then there was some more "fiddling" back and forth between the 2 birds. Again, I couldn't follow it. One bird (♂?) repeatedly assumed ft's or low-intensity int. movs. of ft's. Usually after and/or before slight retreats. Possibly also traces of Low Bow.

I think that all the really extreme ritualized postures during this encounter were silent. But then one of the birds (presumably the ♂) began to sing in a weak ft. Posture. First simple whistles, "Whooooo"s. Then the other elements of typical song were added, as the bird gradually relaxed and dropped the ft.

7:30 - 7:45. ♂ apparently alone again, singing full songs, as before, in more or less unritualized perching posture.

It seems very likely that this whole incident was an unsuccessful copulation attempt, followed by vigorous hostility between the mates.

Atlapetes, I.

April 5, 1963  
Near Jarawa

7:10 a.m. 9700+ Working in dense wet scrub along ravine.  
Come across a pair of what is probably the same "PL" species that I saw yesterday. But today notice that their crown pattern is different from that of the PR's I have seen in other regions. Common ca