- quitral aes - Yellow-throated Bush-finch.

Three kinds are quite common around here. Single, or in pairs, or trio's (probably adults with young). In undergrowth
usually, but sometimes come out in open to feed on ground or
sit on exposed perches. Less shuffling than I expected.

They also seem to join the mixed flocks of Buck-tail
agers & warblers - at least temporarily.

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

They do T's of the usual type, quite like Amenurops
but very little a (less probably) nothing in the way of W's.

The only sound I have ever heard them make is a soft
"tuck", similar to a CW, frequently repeated.

I have caught one bird in the net and put it into a

cage. Quite silent throughout

- bruneri - nuchia - Chestnut-capped Bush-finch

Three kinds seem to be moderately common a little further
down the mountain. They are very definite, extremely shuffling. 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.
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 one another. Quite unlike the Green-backed Sparrows or Yellow-striped Finches.

March 3, 1959
Cuno Pranta

Yellow-throats around now, much as last year. Singing in pairs. In the same edges as the Yellow-striped 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 remarkable silent, on the whole. I am not sure that I have ever heard one of them utter a single cry 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 its breast, it was sitting with a piece of m.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 m.m. Later on, I think that the same bird uttered a long series of accelerated notes, quite like the “P song” of the Green-backed Sparrow, but
very much softer, while it was looking at me rather nervous. It is possible — I suppose — that the "warble" followed by "till" I heard earlier may have been something of the same sort. Both these vocalizations seemed to be given from perfectly normal sitting postures.

We got a very good view of a chestnut-capped Buchi-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 4-5 ft off the ground, singing apparently by itself. The song itself was a long, rather soft, whistled phrase. The phrases were repeated again and again for at least a minute, possibly more. They were also quite variable. A "typical" phrase may have been more or less something like "tut tut tut - tettee tut - tettee tettee." 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 - tettee" was somewhat variable, some phrases perhaps including 3. In any case, the main part of the phrase apparently always consisted of double-t. And all the phrases ended with a niglet "tettee." This song was given while the bird sat in an ordinary sitting posture — with crest very much raised (C.R.) and throat feathers at least moderately fluffed.

The bird just disappeared from view after it stopped singing.
I caught a yellow-throated Altametis 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 handled them (1 blue and 1 red), and let them loose in the cage with the one surviving yellow-throated 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 "chi-chi" notes when first released. After that I only watched them for about 3 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 Altametis. I think that during these moments, the old bird was more often advancing to treating before re, but both types were no signs of actual of often stood with its feathers a rather distinctive way. Defin white crown stripe. Yellow the not slumped, but not ruffled, just looking swollen (I shall call this "Thf"). This CR and Thf is very reminiscent of brunnera-macha, 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
unalternated "pre-flight" postures sometimes accompanied by G-
but this was never very extensive, and I don't know if it was actual
used or not.
San Antonio
Ca. de Quito
Afternoon, August 4, 1957

We came across a small flock (at least 4 or 5) of these birds in the brush along a small river in the humid temperate zone. Very active and restless birds. As far as I could tell (and I never got too overwhelming a good view of the birds), they moved about just like the chlorophringues at Chirique.

The most distinctive feature of these birds, if they really were a species of chlorophringues, was their comparative silence. They gave a lot of "Feit" CN's when just moving about in the brushies, and accelerated bursts of at least 5 or 6 rapid "Feit" CN's when flying between adjacent brushies (these accelerated series were far too slow, however, to be called an "R" of any sort). But all the "Feit"'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 brushies and some individuals of a Conospermum species. When the whole group
was disturbed by our approach, however; the perched Bulu-teenagers regrouped out. Later in the afternoon, I saw a ChiricoL in the same bush as the perched Bulu-teenagers, but I don't know if this was anything more than coincidence or not.

This afternoon, on Buluicha, 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 Chloropterigus or Allapetes or something my neighbors.

Moving about quite like the "Chloropterigus" I saw yesterday, also relatively silent, although one of the birds probably uttered a few soft, rather buzzy single "Dzhut" notes as it moved through the bushes (it
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 smooth down flat, but once it did a little or quite like that of *Allopetes*.

*Allopetes*, I 
August 5, 1957
Cuyo Atacama

This morning we arrived at dawn up in the puna. At a place where bushy vegetation (characteristic of the humid temperate zone?) extended up a valley into the gray slopes. When we first arrived, there were some 20-30 of the rufous-capped, yellow-throated, Chlorocynips-like finches, merging from poles in the shrubbery.

I was only able to see one bird merging, and this was under rather unfavorable conditions, but his merging picture seemed to be coming.

Quite sluggish.
Wings slightly drooped

![Sketch of a bird](image)

The songs themselves were quite highly variable. Counting of clear whistled notes and rattles, usually or always preceded by a sharp RN-like note. Some of the songs I heard might be represented by the following transcriptions: "chup chee Feeo Feeo" or "chup chee chee Feeo Feeo" or
"chip chee mmm" or "chip chee wheeoo" or "chip feeo feeo mmmmm"

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 fully-capped Bush-tanager, and far as the R element seems to be one loosely connected with the more musical song part.

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

Attapetes, I

August 9, 1959
Ceno-Pickwick

Watching several small parties of this yellow-billed species moving through lightly "hedges" near the top of the humid temperate zone here. Very noisy 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 "Jit" or "K" nearly constantly, most of the time, both when actually moving or flying and when perched ready to move.

A couple of times, when moving 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 members 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
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 tatk tatk tatk whereoo whereoo whereoo whereoo whereoo.”

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!!

Alagates, I. March 20, 1960
Ceno Quinta

Have been watching Yellow-streaked Piculs finish here in the usual places. Believing much as in previous years, shrubbery and silent.

Watching one pair particularly close, around 7000 ft. Call this pair A. Moving about in the shrubbery. But comparative by twos, and no occasionally coming to the tops of bushes. Every once in a while, one bird would be left alone on a top of a brush when its mate left it crouched. 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 Yf, like the one drawn on p. 4). Long scripts, TE’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 “Huit” (rather than “Huck” as on p. 1). One bird, probably the ♂, when left al
Altagetes, Mar. 29, 1960, It.

Our for a comparatively long period, uttered a few single note-like long
for "Twice" Notes interspersed with ordinary CN's, before flying
off, presumably to join its mate. For long "Twice" Notes were
presumably produced by the returning of something like a gushing drive
shall call them "ECN's." I think that once, when one bird was
left alone (pumping 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-striped Finch.

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

Altagetes, I. March 29, 1960

Cedar Point

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 apparent
ly purely silent! The two birds involved in the chase disappeared,
and the remaining bird (the one 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 behaviors, 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 a
density rapid rhythm — — —
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 no way less the same rhythm. Then this other bird gradually covered the field, flying from bush to bush in the field, continuing to utter ECN's until it was halfway across. When the two birds finally got together we did not hear any sort of vocal quivering or song (unfortunately 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 a rhythm common for:

I am beginning to think that Allepetes (i.e. the two species) here may be quite closely related to *Pithecophorus*. The use of ECN's by a Yellow-throat separated from its mate is similar, reminiscent of the "Who where where..." notes uttered by the related Yellow-throat. I watched on March 3, 1957 (III, p. 7) for the notes on *Pithecophorus*.

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.

Allepetes, Mar. 23, 1940

Ceno-Panta

Recently we have been paying particular attention to 1 pair:

2 fairly lowdown on the mountains, on the upper edge of the bluffs.

I call this pair "B". There are also probably several other pairs we
tentative adjoining that of pair B, (we know time 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 nuc.

Every time we flush the B birds, one or both flies away indicating 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 the chest a few feet from me, hopping about very excitedly (but keeping facing me almost all the time), performing lots of IF's (and WF's), with CR (and probably some slight shift), and uttering lots of typical ECN's, one right after the other in fairly rapid succession. The bill opened and 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 shrubbery where they were unobservable 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 some thing like: "Tree tree tree whee whee whee whoo" or "Tree Tree Tree whee whee whee whoo" or "Tree Tree Tree Tree whee whee whee whoo"

We were actually near a Yellow-throat utter such song phrases.
but I am quite sure that their plinthes were really being uttered by
Yellow-throats. For 2 reasons: 1. The initial "twee" is of the song
plinthes are almost identical with typical ECN's. 2. We only
heard these song plinthes 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 of its neighbors in progress.

It seems likely, therefore, that some or all of the song of the
Yellow-throats are largely or completely instinctive.

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

We went back to study pair B again this afternoon. I met
more or less obscured in the willows near a bridge, while David "drove" the pair past me 4 or 5 times. They never uttered anything except E-
CN's as they went past me — except once. (It is probably not surprisi-
ing 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 concealed
with mixed feeling. I heard 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 lo-
ok at them. Just as I turned, one of the birds uttered an unmatch-
able burst R! I rather think that this must have been at least partly
hostile. It is possible, however, that the birds had not recognized ex-
citement until I turned around completely. So this R may
have been less strongly hostile, or lower intensity, than the song we hea-
rd this morning.

We only heard the song once this afternoon. This was when we
came upon the pair rather suddenly near their next 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 next 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 utter other types as well.

It is also quite evident now that the Yellow-throats habitually follow or form the nucleus of these flocks. They are seldom or never the lead-ers 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-streaked Bush-Finches. The Yellow-throats also occasionally go high into trees, and "flip" up and down variously, in almost exactly the same way as the Yellow-throats, 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-capped with a mixed flock—not even associated with Yellow-throats. And the chestnut-caps always remained 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 shrubbery quite leisurely on the ground. Unlabeled and unaware of my presence, all the time they were feeding they uttered nearly constant soft, thin, high "tree's." Even thinner and softer than the EEO's of the Yellow-throats. Presumably "contact notes." They were not accompanied by the slightest trace of usual ritualized postures or movements. No trace of either CR or RF.
Attapeotes, I.

March 24, 1960

Ceno Punta

Just below the curv. bend of the road below Ceno Punta we came across an Attapeotes uttering Eeew's and singig in a brush. Around 4:00 p.m. some of these songs were essentially the same as those I heard yesterday. Further down the mountain 98

and

With a very thin "Eeeew..." quality.

We could not see the singing bird very well, so I kept around the brush - only to superpose 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, one or suddenly uttered some song phrases which seemed to be rather different. Stronger and more whistling. Less of the "Eeeew..." 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.
We disturbed the pair of Yellow-throats near the upper part of the tree. They then stayed hopping around in nearby bushes for several 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 0 & 9 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 Blackbirds.

I am now quite certain from my observations of many species that the CR and RF of this species are indications of either alarm or hostility in general.

A "nervous" Yellow-throat is very apt to perform "intention movement of flight bowing." First stands with neck stretched upward, then abruptly lowers it so that the neck stadies straight forward, then pulls it 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 performed by many other birds. This afternoon, for instance, we watched a single Prothonotary warbler in exactly the same way in similar circumstances.
We were walking along the road, near the quiet bend, very close to the spot where we heard the Attapetes song on March 24, 1960, when we suddenly heard a song from a bird hidden in a bush. I recognized this as an Attapetes song at once—and also as the song of a Cluentit-capped rather than a Yellow-throat. When we finally saw the bird, it turned out to be a Cluentit-capped, as expected, so we must be getting pretty expert in recognizing the songs of the species.

I can fairly contain that when we first heard the bird (probably when we first identified 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.

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    tui tui tui tui tui tui tui
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Immediately after this, the song became extremely variable. There did, however, seem to be one “basic” phrase, which might perhaps be represented by the following diagram:

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Daudel would transcribe this as: “whi he whi he heccccccc um”.
I think perhaps I would transcribe it as “tut-te-tut-te-te-teccccccc”.
If so, it would appear to be identical with the song described above.
Mar. 6, 1959, p. 3. Most of these basic phrases had a little terminal
bit added. Sometimes just a single "tie" or "tec" note. Sometimes
a partial duplication of the end of the basic phrase, e.g., "tie beco-
eren" or "tec teceecceee." Perhaps

sometimes a brief triple note which David would transcribe as
"tituwhiceeeae." ("tub-ta-teeccecece?""). More often a dou-
ble "tituwhiceeeae." ("tub-teeececece?""). This latter dou-
ble 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 pit-
ch at the end. 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. Sitting with head
a bell pointed diagonally upward, but with little or no CR or

My

possibly slight

trace of CR, but

no more than

this.

Their songs were also intermingled
with quite a bit of cat's. Apparently perfectly
ordinary cat's. More or less "Tritt"s.
It is interesting that neither the Chestnut-Capped nor the Yellow-throated Altajetes perform "greeting" songs when one wants the other. In this respect, the Rufous shirts described above on Aug. 9, 1959, p. 9, may be intermediate between the Altajetes spp. here and Plectographes, just as they seem to be intermediate between Altajetes and Chlorociprinus in some other respects.

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 HNC in such circumstances, which seem to be characteristic, of all bush-furriers and bush-tanagers except Amewou, was simply correlated with their gigantic helots. I.e., these helots might not be able to use a high intensity aggressive pattern were it not for the fact that the Chestnut-Capped Altajetes (and presumably the Orange-bellied Sparrow) are also quite silent when handled in the net.

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 r), 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 a shrill "tchuck".
Cetaceus, Mar. 31, 1760

Looked almost like "panting," but the bellow had certainly not been struggling enough to cause such prolonged and vigorous panting. I think that it must have been a ritualized pattern. Perhaps the equivalent of the HAC of most humans? (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 bellow (presumably the ♀) sometime after catching the first. When we put the second bellow into a paper bag with the first, there was a sudden burst of moderately soft, twittering, "farewell," warbling song from the bag. Quite reminiscent of the Yellow Thrush!! Another indication that Cetaceus and Phalacrocoracines are related.

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

Cetaceus, May 21, 1760
Cuno Puhplinck

This morning we watched a single Sylverinaa sitting high on a bare limb at the top of a tall tree, singing repeatedly. Presumably ♀? Her songs were most distinctive. A single phrase, very frequently repeated at intervals of a few minutes or seconds. All his song phrases 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:

Cheero Cheero Cheero Chir Chir Chir
May of this bird's song phrases were alternated with preening quite vigorously and autodissociative-cooling. 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 seemed to provoke any response from any other bird. The singing bird eventually gave up and flew away (perhaps frightened by us).

Altapetes, I
May 25, 1963
Cerro Palmarela

The remaining birds were a good deal more conspicuous and 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 "3 ee wee 3 ee 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
proceeded a rattie ni 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 "Feeo" on preceding pages.

Still later, we heard our 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 a "KooKoo" note, which was followed by an obscure whirring 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 Cittarpetes. Coming from deep inside a tall thicket. A whole burst of harsh notes. Uttered singly, or in doubles, or in triplets, or in quadruplets— or — or — or — — — — Each one of these notes might be transcribed by something like “Wahh” or “Dawh” They all or almost all had a pronounced rattie undertone. They were quite reminiscent of the gray notes of many other species, but rather more mechanical sounding. They were occasionally interspersed with "cheeo" or "Feeo" whistles.

David saw an Cittarpetes moving about in the bushes when these sounds were being uttered, and the sounds seemed to move down in the bush as the bird moved. Then the bird flew out of the bushes and away. David said that he is almost certain it was a young bird. It looked completely pale and grayish underneath, but did seem to have (at least) a yellow throat.
After this lurid display, there was at least one, and possibly two, birds left in the bunch who continued to utter a few of the "race-type" notes and "freezor" or "cheero" notes.

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

Altapetes, I
May 23, 1960
Cerro Atacazo

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

In was only able to see one bird singing. It was in a frotica

Crest 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 earlier.

All the songs uttered by the birds were remarkably standardized. A typical song phrase might be represented as follows:

"Chip cheero-cheero-cheero" in which the pitch of a typical
The phrase was quite distinctive:

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"chip"  "cheeoo"  Rattle
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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 “chips” instead of 1. (A typical song phrase with 2 introductory notes and no rattle is provided by what the bird we watched in Pachucaba on May 31 — see p. 31 — was uttering.) It is possible that some songs included an extra “cheeoo” note, but I rather doubt it.

I don’t know why the song of the 27th today were so much less variable than the songs of the 29th we watched in the same area last year — see notes of Aug. 4, 1957, 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 no-way Yellow-Bellieds singing this morning).

Perhaps surprisingly, none of the singing birds performed any overt mechanical or nervous gestures — 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!
May 27, 1960
Ca de Tunqueto

This morning we saw another Yellow-belly swinging in a bridge down here. Before sunrise as usual. His songs were slightly different from those we heard yesterday on Atacama. Might we suggest as follows:

"Jeyoo Jeyoo Jeyoo Joo-tee-tee"
Sometimes followed by a Pahtee. Sometimes the second note was "Joomee" instead of "Jeyoo".
As far as I could tell, the cat was sitting in an unusual posture while uttering these notes. Not greatly fluffed.
I wonder if every local population of this species has its own distinct version of the local song pattern?

Ceno Pulmanca

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-bells. A pair of birds moving about on 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 comparatively soft, rattle. Then the whole phrase, warble → rattle, was
repeated one, 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 \textit{altipetes annulatus} (= \\textit{a}) (I caught a few brief glimpses of a pair of the same birds last year — but too brief and too obscure to determine what they were.) This bird looked approximatively come so:

Very \textit{Pogopetes}‐like in general effect.

Big‐beakied.

Head black or 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. Under parts gray, fading to olive posterally.

The only interesting pattern I saw this bird perform today were flicking movements. \textit{V}–\textit{D} TF's with a strong lateral component. Also \textit{WF}’s. These \textit{WF}’s were rarer than \textit{TF}’s, but when they did occur they were synchronized with \textit{TF}’s.

This species is much more like the \textit{Altipetes} spp. at Cerro Punta than like the \textit{Yellow‐bellied} in general habits, thumping, moving on the ground or in low branches. Comparatively silent (I have not yet to identify any of its calls or notes.)

In case I have forgotten to mention it above, the \textit{Yellow‐bellied} is not only comparatively noisy but also somewhat territorial. It is a bush loving species I have yet to see it move on the ground, but it is usually found in bunches 2–10 ft off the ground.
We heard a Yellow-bellies singing here this morning (qui to far apart — definitely not the same bird. Both gave eventually the same song. A complete typical song phrase was comme ça:

"Feoo  Feoo  clunk—clunk—clunk"

Occasionally an extra "clunk" was added at the end. To my surprise, there was never any R added. 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" "Feoo"'s and "clunk"'s. Either many, or in series, or all mixed together in apparently random order.

In some cases, the terminal 3 or 4 "clunk"'s were replaced by 3 or 4 "chew"'s, abbreviated whistles rather like the first "Feoo" notes but shorter.

The time shown on it attired a note, usually upward.

The clumps were

Both

one while singing

belles I have watched, they were quite

very good fomers os one of the birds
general period of song. A bird would first sit on one perch, swing, fly to another perch, swing, fly to a third perch, swing, 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.

May 30, 1900
Cuno Rieckner

This morning was cloudy, with occasional fog and/or rain and we caught many more glimpses of Black-headed Oriole-warblers (icteris), 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 Beating and nattering, Pouting. The Beating and Pouting usually, but not always continued or synchronized. Tail usually definitely cocked upward and I shall call this "TV". Extreme U-D TV? with very strong lateral component, frequently superimposed upon the TV. No WF's. Instead the wings were held out from the body a little and kept motionless. The body plumage was only slightly flushed, if at all. CR was very extreme and there was a moderately extreme HS. While perched, the birds alw-
Any or almost always kept the "knees" 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, Tbf, etc., immediately upon landing again. (I assume that they even maintained the CR & Tbf when hopping or walking 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 "intent on movement of flight" Bowing of Yellow-throated Altametas (see notes of Mar. 20, 1960, p. 14) but much more exaggerated and ritualized.

Bowings
Pivoting
(both with extreme Tbf)
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
mark 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
grey behind the black marking (the black marking does not reach the back of
the head — it is probably only a cheek patch).

The gray median stripe is most 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 see-
ding, it was hopping about on the ground in the path.

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

"Isa wheeoo wheeoo" or

"Isa wheeoo wheeoo wheeoo wheeoo wheeoo wheeoo wheeoo wheeoo" or a similar song with a
lot of notes added at the end.

"Isa wheeoo wheeoo ew-ew-ew-ew-ew-ew-ew-ew..."

His 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. Pending 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 sounds, e.g. "Dit" or "Didit" or "Didi-
dit" or " ... or even longer series, e.g. "Didididididididit" (the number of
notes in these longer series was quite variable, did not appear to be fixed
These birds had CR when we walked them.

Once, when our bird flew and landed beside the other, one of the birds uttered the "Quitting" "Zoo wee zoo wee zoo wee ..."

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

I have never noticed any of the Yellow-bellies utter...

---

We did most of our work near Hona today (see today's notes on D. japonica). This is 300 to 1000 ft lower than the other area where we have made our previous observations on Pselidiclia.

Yellow-bellies are surprisingly common near Hona. Both in the hedgerows 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 ravine of the streambed above the cultivated fields.

As a result of watching both species quite a bit today, both near Hona and in the area where we have worked before, I can corroborate my previous suspicions of the habits of the 2 species. All the Yellow-bellies I have seen have been in branches 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 galls.

The 2 species would seem to be strictly non-competitive.

Both species are also completely non-gregarious. Always or almost
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 singer ___ ___ ___ type song on previous
days, we heard the same type of song again. Obviously the same ___ ___ ___ singer to the same type of song for (at least) an appreciable period.

Atapatera, June 1, 1960
Lino Pichuca

Walking near House again today.

Noticed one Yellow-belly in particular, singing 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
including 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:

| flossao | Fessao | 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 its 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 thwarting of some pairing and
on normal drive.
Several times, both today and yesterday, we have observed more Yellow-bellies uttering "Dit", "Dit dit", and "Dit dit dit dit..." notes quite like those described above on May 30, 1960, p. 31. Some birds near us and others apparently alone. None of those 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.

Alapets, I
June 7, 1960
Ceno Pulmicia

Working near home again today.

This morning, from the time I arrived, at 6:00 a.m., until at least 17:00 a.m., there were Black-headed Alapets singing all over the place!!

I first became aware of this when a single Black-headed flew across the road right in front of me. It uttered a lot of single "feeceee" and "freeeee" 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-seeceee" and mixed with the snipe ones. Then it began to utter "foo-seeceee" Notes instead of the previous "feeceee" and "freeeee" Notes. All these notes were relatively clear and wassert-like, and at least moderately loud. The bird continued to utter "foo-seeceee" Notes for quite a long time. They appeared to be eventually snipe notes, repeated at fairly distinct and rather regular intervals. Conne ca:

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
as it immediately fell silent and moved away from me. Then it started to
utter "foo-eeeeee" notes as before, about 10 yards 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 hoots.

A few minutes later, I heard similar "foo-eeeeee" notes com-
ing from low inside veg blooming vegetation, in an entirely different pl-
ace! 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 sa-
w a pair of Black-headed Alcteetes a couple of days ago.

Still later, I surprised a single Black-headed 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. The 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 mo-
ved 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. This
usually produced by the uttering of some particular sound or sexual drive(s).

It is probably significant that both birds I saw put before they began
uttering "too-seeeee" Notes, or in the intervals between notes, were
apparently single.

The Yellow-collared 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 sang here would suggest that they are more advanced in
the breeding cycle than the birds we heard on Cerro Atraco. Perhaps the
absence of the presumably hostile rattles at the end of songs is merely an in-
dication of a relatively advanced stage of the cycle?

I heard lots more CN's and "greeting", 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 typic
al "greeting" sounds are usually most common in such parties.

June 2 heard one bird utter some more distinctive sounds, app-
nessly as "greeting" when it joined its mate. Very peculiar "greeting" was
a real "mumble", a very rapid "Sit-it-it-it - zeaa zeaa - zeaa - zeaa - zeaa.
Perhaps a peculiar combination of ordinary CN's and typical
"greeting" notes ???

The bill of this species is really quite large and strong - for an Alt
apetes.

I noticed this morning that the feathers of the crown are really com-
promised, separated during CR's.

This afternoon I heard what was apparently a Black-headed Alt
apetes begin to sing around 4:30 p.m. Mostly "too-seeeee" Notes, int
errupted with an occasional "feeceeceee." Listening close up, it was appa
out that some, but not all, of the "Do-0,000,000." Notes were really more like "Ja-a00,000,000."

In connection with the sound of the Yellow-look, it may be significant that the usual song of the Andean Spurious has a 2 whistles followed by a rattling. The note may be not too distinctly related.

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 Attaeetes flew out of a ledge on one side of the road and landed in a brush on the other side. It may have been joining its mate in the brush, but I am not sure about this. In any case, it apparently uttered a very soft "song" immediately upon landing in the brush. This might be translated as "Tree tree tree tree tree tree tree tree tree tree tree tree..." Probably accelerating. Rather interesting in general effect. Rather reminiscent of the call of Pueborouphus. Probably even more like the "quailing" vocalizations of the Yellow-Bellies in Ecuador.

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

I wonder if the extreme softness of the song of the Yellow-throats might be explained as follows. They are essentially followers in mixed flocks. Perhaps disadvantageous for them to intrude other species, rattles than the reverse. Their original song may have been loud and Pueborouphus-like. But, as the Bush-t natiners seem to have developed a positive reaction to Pueborouphus songs, it is possible that have had to model...
Allopatites, Oct 3, 1960, II

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 tent hopping around excitedly in a tangled, about 6 ft off the ground. During this hopping it frequently assumed a real Pt. Portrait Comma... possibly head even more wrong 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 like the high position during int. movement of flight bowing, but was much more exaggerated during all this hopping about a ft. Portraits, 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.
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-fuffing. 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 ft. 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 court act 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 my case, one of the birds was back in the same tangle after a few seconds, hopping about, assuming ft. 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.

Attapetes, 1

October 14, 1960
Cerro Punta

Both the day before yesterday and today I heard Attapetes-typical songs coming from a hedge near the great bend of the road. Today I finally managed to see the birds. They were short-nut capped Bush-finchies. Both the day before yesterday and today, the birds (s) were singing when I arrived in the area, around 6:15 a.m., and continued for about 15 minutes (dawn
soups are obviously characteristic of brush bushes, warblers, and Acadian orioles. Why?

All or most of the songs I heard the day before yesterday were more or less commence:

"dub dub dub dub dub dub dub"

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

"dub ta nee nee nee nee nee"

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

White spots
on forehead
very conspicuous

Looking quite plump

Obviously very little ritualized. Only very slight trace of CR and Shiff.

After flying across the road, I think the bird continued to utter song phrases quite like the ones it uttered in the hedge before travel.

Surprisingly enough, another bird in the hedge (presumably the mate
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 phras-
es 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, how-
ever, I noticed that its song phrases were slightly different. One pair

"duck duck "

The transcriptions of all these songs may be slightly misleading in one
respect. All the notes of all the songs by both birds were thin, clear, high, whis-
tles. Very reminiscent of ECN's in quality.)

This continued for at least 20 or 30 minutes. Finally, the second bird flew
across the road also, and landed about 10 yards from the first. The first animal
calmly 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
"quitting" song when they presumably met.

This incident would suggest that both the birds of this species can
sing, but that one may do 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-streaks, coming upon
them rather unexpectedly. One bird stood in the open and watched me for sev-
eral minutes. Frequently stood with the posture shown on p. 4 above, with
outstretched CR. Also made not. mov. of slight bowing movements.

I think that CR must be an indication of a relatively strong escape drive.
Altañes, T
October 9, 1960
Cien Puerto

In my notes of Oct. 8th, 1960, on Altañes, 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 on
nursing now.

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

Altañes, T
April 11, 1961
Cien Puerto

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 me several times
to a bush very near the nest of the Black-throated Finch (see yesterday's note

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 nice, light, 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 uninterested posture. Apparently silent. This
is the only time I have ever seen a Yellow-throat ro "exposed." Quite some
resemblance of footy-capped Bush-tanagers.
A couple of days ago I surprised a Yellow-throat in a thicket standing in an extreme St. Pictou. Quite like the picture drawn on Oct. 26, 1940, p. 36, but this bird was more fluffy (evenly rounded outside). This picture may have been intermediate between the St. Pictou drawn on Oct. 26, 1940, and the picture drawn on Mar. 17, 1937, p. 4. No CR. The bird was definitely quite silent as long as it remained in this thicket. Then it flew off and disappeared from sight.

I don't know if this St. was provided by me or by some other birds in the neighborhood.

This afternoon, much to my surprise, I saw 2 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 "Fit" CV's. Performed a number of irregular and uncentered or leaping bowing and pinching movements. All this with a slight CR and WH.

Atlañetes, I.  
April 13, 1961  
Cenó Punta

I came across a pair of Chestnut-capped Atlañetes early this morning. In a thicket about halfway between the upper pasture and Cenó 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 fluffed leaves aside with their bills and piled at food with their bills without fluffing. No matching crops like Pogonites.

Most of the time I watched the birds, one of which uttered short
but sharp "Fut" Notes. There may have been CN's or AlCN's.
(I rather think the latter.) Every 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 alwa-
s) extreme High Y. At such times, it also tended to perform a few
irregular but rather unorthodox-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 Pachypterus.
The tail was certainly also spread most of the time the bird was near
me.) The bird continued to utter "Fut"'s as before whenever it
came close to me.

Notice curve of "mask"

Body probably too small

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

Only once or twice did the bird perform bowing which was alm-
most as extreme as some of the Bowing of annulipes and Pycnopterus I have
seen. At such times, the neck was definitely stretched. See drawing
on next page.
Later in the morning, I suddenly became aware that one of the Chestnut-capped Atlapetes was "singing" quite loudly. Come go:

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za-weeeeee  za-weeeeee  za-weeeeee
         mmmm         mmmm         mmmm
```

Repeated again and 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. Thisply 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 dispute 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-weeeeee  za-weeeeee  za-weeeeee" vocalizations had considerable

Shyly, and it probably had some (Ravens).
Then one bird flew away into a thicket across a ravine. Immediately afterwards, I heard a series of rather variable song phrases coming from the thicket. Now or less commonly: "Ta-reeeee ta-reeeee..." or "Ta-reeeee..." or "To-reeeee...". I am certain that these song must have been uttered by the Chestnut-capped.

A few minutes later the bird that flew away was back, approaching its mate by hopping through the thicket. For "quoting" except (possibly) a somewhat accelerated version of "fizz" notes.

Later in the morning, I heard some sounds coming from a thicket about 1/4 of a mile away (i.e., certainly not within the territory of the pair I had been watching earlier) which appeared to be another type of Chestnut-capped song (although I never saw the birds). More often coming "Ta-reeeee..." Also some times "Ta-reeeee..." (the "..." stands for a rather formless flutter)

All the Chestnut-capped songs I heard this morning were rather high and "whispering". All quite faint, except the notes which were strong "mmm!" They sounded as if they might be "supersonic".

The Chestnut-capped and Yellow-throated Cattarpetis seem to be quite well segregated where their ranges overlap in many areas. The Yellow-throats seem to prefer thicket in fields which were cleared a few years ago (where the thicket are not ever-shadowed by trees), while the Chestnut-capped seem to prefer thicket in forest and woods.

But still the 2 species come into contact with one another quite frequently.

I imagine that Passogetes is the strongest competitor of the Chestnut-capped here.
Incidentally—I forgot to mention—but I suppose that most of the "ta-zeeeeeeze." Notes I heard today (at least the ones without the rattle undertone) were the same as the notes I transcribed as "ta-zeeeeeeze." and "tha-zeeeeeeze." before.

Altapeco, I.
April 14, 1961
Ceno Punta

This morning I watched the same pair of Chestnut-capped Altapecos 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 most commonly:

"Ja ta 3eeeeezeeeze. ta-ta."

The last notes (the "Ta-ta")s were usually louder than the rest (and higher pitched than the preceding long note). Sometimes the bird uttered "abbreviated" songs. More or less common:

"Zeeeeeze. Zeeeeeze."

There was a faint rattle undertone to some of the "Zeeeeeze."

Notes in both types of songs:

All these songs were accompanied by some RR and TF—
but this may not have been very significant. The birds always seem to have some RR and TF wherever I see them.

As in the case of Phylloscopus (see today’s note on p.), I wonder in the long "Zeeeeeze." Notes in the "songs" of the Chestnut-capped Altapecos are really essentially S’s?

Late in the morning, the 2 birds of this pair of chestnut-capped became separated again. One of them immediately began to sing more
or less in the same way as earlier this morning, and in the same way I have heard other Chestnut-eared doms on previous years. Lots of them high “Zoeeceecce” Notes, and also lots of shorter "chuck" 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 "just tick tock" repeated, with a definite rattle undertone. This would confirm my suspicion that the rattle undertone is eventually lost.

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 13, 1961
Ceno Punta

Watching birds in the area halfway between the upper pasture and Ceno 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 "Keevoo" song of the Spanke de Toro, the "Whew" song of the Buff-throated Saltator, and the "Kaw" song of the streaked Saltator.

I either heard 2 different Yellow-throats uttering "dawn song" or (less probably) the same bird uttering "dawn song" in 2 different phases, quite separate from each other. In any case, I heard a long burst of this "dawn song." I did not see the bird uttering the first bursts of the rattle notes of the second burst.

Both bursts were uttered by birds perched fairly high (5 - 10
Both bursts of "dawn song" were the same. "Keeyah kew-keeyah kew-keeyah kew-keeyah kew-keeyah kew-keeyah kew-keeyah kew-keeyah kew-keeyah kew-keeyah kew-keeyah kew-keeyah kew-keeyah kew...". Indeterminate in length. Eventually a regular alternation of "Kew" and "Keeyah". Notes. "Kews" sometimes repeated twice without intervening "Keeyah".

I think that the "Kews" were sometimes宁愿ly higher pitched than the "Keeyah". Commenga: "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 a while, before settling down again temporarily. (It is possible that the bird was disturbed by any 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 "wring-rawing" ("WR")

Pictume of bird uttering "dawn song" as it hopped through brush.

Jail probably janned.

Crown stripe visible.

Flight shows.
Every time the bird uttered a note (both "Kew" and "Ke-gah"

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 3.

The wing(s) raised well above the level of the back (and probably ho-

ld out too, but I couldn't see this from my point of view). The wi-

ng(s) were apparently closed, and folded away, completely between su-

ccessive notes. The bird did WR both when it was perched and when

it was moving. (The wing on the side near me looked dark under

neath when raised, but this may have been an optical illusion.)

Apart from this WR, the bird uttering the second burst of "dow-

n song" did not perform any special ritualized movement. The "dawn

song" was accompanied by a and some fluff (which were apparen-
tly maintained between note and WR). The bird looked bug-headed, with

a small plump body. I think the tail was kept more or less formed throu-

ghout. I do not remember noticing any TE'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 postur-
es appeared to be unritualized sitting or hopping postures.

I think this WR must be closely related to the $ of male Brown

capped Birch-Tanagers during their early morning "pre-W" perform-

ances (the $ Brown caps also raise the wings above the back during

the S of their "dawn songs").

The bird(s) uttering both the bursts of "dawn song" this morn-
ing appeared to be quite alone, without any mate in the neighbor-

hood. This is what would be expected.

All the "dawn song" of the Yellow-shouldered seemed to be over

by 6:30 this morning. I did not see the bird(s) again later in the

morning.
I also noticed 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-zeeeeee" and "Ja-a-zeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeeeeezeeee
always with a strong lateral component. When moving about no
usually (undisturbed), the birds perform few or no WFs (I imag
nie, however, that the species may perform WFs when "upst"
leve other birds for bees.)

Altapetes, April 15, 1961

I went back to the same place again this morning. Arriving
early around 6:10 a.m. When I arrived a Yellow-throat was utti
ning "dawn song" in exactly the same spot I first heard the "dawn
song" yesterday. The bird was very well hidden, and I never even
cought a glimpse of it. The song itself was exactly the same as the one
I heard yesterday. "Kew" is definitely higher pitched than "Keeyah".
I quickly studied the swishing 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 burst of swi
yesterday. But again I was unable to see the bird. It finally stop
ped swishing without my ever obtaining a glimpse of it.

Then, a few minutes later, at 6:14 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 , , , , , , , , Preliminary to lowest intensity ve
rion of the dawn song. With CR and TRF, Bell opening & clos
ing with each note. No WR. One WF with one of the notes. Then the
bird flew away without doing anything more.
During the last few days, I have seen quite a lot of sufinch-a near Yungue, near Tiquino, and on Atacasa-in the same places we saw them on previous years.

I have seen a lot of F's singing alone, both in the early morning and in the evenings. I am certain now that F'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 are always or usually join, or are joined by, their mates eventually.

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

I have only studied the songs at Tiquino and on Atacasa. In both places, the morning songs of all the birds were essentially: "Whoo-whoosh-whoosh-tut-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 sufinchae singing at Tiquino this year. His songs have been quite remarkably stereotyped. His songs have never included rattles. He usually utters the typical "Whoo-whoosh-tut-tut-tut-tut" and nothing else. I would diagram this typical song as follows:

This is somewhat different from any diagrams of typical songs last year. The only variations in song which this bird has shown since then...
I have been the occasional addition of a third whistle-like, "Wheee," note, right after the first two, and/or the occasional omission of one of the terminal "Frit" Notes.

I only observed the birds on Atasoo this morning, just at dawn, at least three birds began to utter typical "Wheee, wheee, tirit-tirit-tirit" songs. Again no Battle. Then, a few minutes after dawn, some or all of them began to add Battle to their songs. Come up "Wheee, wheee, chip chip chip, minimum!"

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

I have several times heard of a subfamily mewing as they moved along ledges or through thickets. This tending to mewing while moving may be a significant resemblance to gull turdals.

The only bird I have been able to see very well while mewing is the Diamonthead, Flight CR. Bill opening and closing with each note of the song. No trace of wing movements like those of gull turdals.

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 "Frit" Notes when they are hopping in thickets and/or flying. These notes are
sometimes repeated quite rapidly, but never apparently accelerated or
to a finish. I think these "fit"'s must be ordinary CN's or ALCN's.

On May 20, near noon, I noted a pair of birds feeding in a
ledge around 9:10 a.m. One of the birds uttered a series of faint,
hoarse, rather high-pitched notes: "Zaa zaa zaa-3aa 3aa-3aa
3aa zaa 3aa 3aa-3aa-3aa ...." almost continuously as the br
nds moved along the ledge.

This evening I observed a rather similar performance near Ho-
me. Again watching a pair feeding in, and moving along a ledge
(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 "seea seea seea seea seea ...:" I think these
notes must have been essentially the same as the notes heard on May
20.

I first heard the "seea" notes this evening when I was some
distance away from the birds. When I went closer, they stopped utter-
ning "seea"s and began to utter "fit"s. A few minutes later, presen-
tially after they had become used to me, they switched back to "seea.
This would suggest that the "fit"s are ALCN's.

These "seea" and "3aa" notes sound very much like the
"greeting" notes I heard in 1950 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, PCN'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)
content, to the "3aa" and "seea" notes of the Dulumsas I have
been writing.

I saw one particularly interesting incident at Juaguito on May 12. One rufinucha was singing on a bridge. Then he suddenly flew up, uttering "Tsit, hit, hit ... " or "Tuk, tuk, tuk .. . " 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 "Zee - Zee" Notes of R's coming from the bush immediately after the Z landed. Then the Z flew up, perched on a tree above the bush, uttered one long Z, and then flew back to the bridge, with "Tsit" and "Zuck" as before. A few seconds later he began to sing again.

This incident might suggest that "Tsit" are great plain least ilce.

Attapeus, I.


Cerro Picurincha

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: "Zee - Wee, Zee - Wee, Zee - Wee, Zee - Wee." One much louder than the other.

I should stress that their "greeting" notes were quite clear and hard. Almost semi-R. Not at all boarse. Z & ZU "greetings" are probably not strictly homologous with the GHAC of other species.
February 1967

Alamosa, I.

I have had some Yellow throated, for a long time, with much watching them. A pair (sexes unknown) in a cage by themselves in a cage by itself without any 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. Newcomers fly to side of cage. Pair in stricken hop about a little. With CR slight Hffff. Seemingly silent. Once one utters brief "See bee bee" when lands beside the other. "Greeting"?

Red stands in settling high brow posture, with little CR and no Hffff. Retreats when newcomer advances. Then does a little irregular, uncritical bob, bowing. Then quiet stand.

Can't see birds at full well

All silent ever since the "Greeting".

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

Pink hopping about in corner. With extreme CR. Slight Hffff. Quite near by. In strait posture, moderate extreme, no CR or Hffff. Doing brief bowing movements occasionally. I presume open is 3, less alarmed than pink, with presumable 7.

Every once in a while one or both, of the pink and green birds will "Greet" when they come close together. As before. Perhaps a little more prolonged. Definitely twittering in effect. Might be transcribed.
"These who who who who . . . ."

Von a few more abbreviated greetings "Who who who" or "Who who" 3-note type most common.

Red still quiet at 9:40. Very slight Thff and even slighter CR. Making occasional bowing movements. Quee & pru go flying back & forth on far side of cage. Pru go will to en time CR, no Thff. Quee with neither CR nor Thff. Quee not really in back when perched between flights. But occasionally points bill diagonally upward (white vent of body remains as in ordinary perching posture) when pru comes close to (him). Red then spends most of time perching at base on leg.

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

Probably uttered by green.

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

Sudden brief fight 10:50 a.m. Aerial chase in left. Can't see who started it or who is involved. Quite silent. Breaks up immediately. Birds behaving as before. Red still crowing. But no CR or Thff.

Occasional slight gaping, but this is probably panting. Tail fanned. Legs flexed (knees visible).
White crown stripe faintly visible (if at all)

Low bow posture

Not usually as extreme as the St, 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 forms pink.

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

Pink (or) supplants red, without obvious sign of hostil

ity 10:25 a.m.

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

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

Front view CR
One of the green peeks from under a large leaf and starts to fly around with it!!! silent. Then drops leaf 10:45

Then does it again and again. It is green! Each time even on all four 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. Makes occasional, very rapid, brief downward bowing movements. Then flies away. Stops n.m. All quite silent.

Leaps are extended as much as possible in St. (This is probably another difference from the usual high bow posture)

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

10:55. Green starts hopping on prickle, on ground and on prickle. Very rapid. “Greetings” each time green lands. This is beginning to look horticulturally correct! Develops into something very like a chain.

Then green hops after red. Green does long St. each time it lands during this! Harriet slower than previous previous pursuit of prickle. Silent.

Then green goes back to hopping after prickle with “Greetings!”

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

Green continues assuming St. Postures briefly, (usually with long downward bowing movements) while all 3 birds feed on ground. Some what difficult to tell put who these are directed to. I matter preserve red. Don’t seem to provoke any response 11:04

Go back to following prickle. Silent. To display. Prickle escapes each time green comes close. Raptures flight. After a while prickle seems to get tired. Doesn’t always flee when green approaches. Then prickle stands near prickle, making more or less regular bowing movements, with
out display. But chase always resumed again shortly
Leaving 11:15 a.m.
After leaving, I gave instructions to have puke taken
out of the cage. Put in a large cage with other species.

**Atlatines,** February 5, 1942
**Bano, 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 of both uttering occasions ELN-type notes
Birds not unified together
Interrupted by they collecting food at 6:42.
Both birds still greatly pre-occupied with their hands
One more or less following the other, hopping down. No displ
ag. Sounds as if they are more or less friendly. Then both sit. Then one adv
ances toward the other (probably reversing original following role)
The other bird retreats immediately. Rather rapidly. And utters a long
“Greeting” phrases as it does so. Quite definite. This would sug
gest that “Greetings” may contain an appreciable escape component.
I shall call the “Greeting” phrases “WBL” from now on.
This turns out to be puke and green in the cage! No won
Don’t that they weren’t behaving as expected!!
False puke out, put red in 7:30 a.m.
Red flees to corner cage. Does a little bowing. No flight (I think.)
But no CR. High bow posture slightly St. -like. Neck and head nearly
vertical, but not body. Green bowing about 5 ft away. Fishing
bow postures are much more thoroughly St. -like. No flight. Both
look quite about

Green's St. -like high bow posture was rather curved and elegant -
looking. Neck perhaps not quite so elevated. But front part of
body looks long.

Legs not straightened

This goes on for a long time. Still continuing 17:40.
Red's body plumage is not sleeked down during the bowing, but the
whole front part of Green's plumage is sleeked down very flat during
the bowing.

Green seems to be relaxing now. 17:45. Less sleek. Starting
to peek at less ring. In the interval, between bowing.

Down phase of Green's bowing always much briefer than
high phases.

Still not much change. 17:55.
Red has little or no flight. No call or sound of its bowing.
8:00 a.m. Green pecks up m.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 retains immobility. Green stands bows as usual (still St. Luke in high posture). Then goes back to old station and continues as before.

Green pecks up m.m., supplants red, continues bowing with m.m. at site where red was bowing before being supplanted. Then flies away, still carrying m.m. Circles around red, at distance of 20 ft, still bowing & carrying m.m. Then red down to feed, green follows. Then both animals back to old sites. Behaving as before, green has lost m.m. somewhere.
Still continuing 8:30. Green still occasionally supplanting red.

Animals still very active all the time. Including red, who continues
dowering steadily when not feeding or being supplanted.

Red's dowering seems to be almost or completely ritualized 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 dowering.

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

Green repeatedly supplants red 8:43. Carrying now in bell

Does brief dowering sometimes between supplants. But most supplants
follow too rapidly one right after the other to permit this. Frequency of EC

W increases during this change. Red seems to give them just as the escape

Then bends velor again. Behaving as before.

Then supplanting starts again. This time green not carrying

in m. Then he does pick up m. and continues supplanting. Red ult-

ters ECW's while escape. Also when dowering between escapes. 8:50

Green does little dowering between supplants while carrying, m. And

the dowering movements he does make are not extreme. Red's plumage is

more sleeked (all over) when he dowers between supplants than at other
times. Interesting enough, no CR.

Things quieter now 9:00 a.m. Red on perch. No dowering. Green

on ground, feeding.

Then green up. Back supplanting red. Again and again.
Both with and without n.m. Still bows vigorously between supplies when not carrying n.m. 9:10.

Juice, when chase is most rapid, of escapes with E.C.N.'s which might be transcribed as "3.3333334/11." Latter part of such meat slightly HAC-like.

Does it again 9:12. Obviously very high intensity. Good evidence that E.C.N.'s are hostile.

Green apparently not trying to actually attack reel during these chases. But his chases do seem to be getting gradually, if irregularly, more rapid & violent. Tempo of reels E.C.N.'s also inclining.

Quiet again. Periods feeding 9:43. Then rest on ground. Leaving 9:35 a.m.

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Attapeles, April 15, 1962

Arrive area where Yellow-throat was heard DC/w by last year (half way between Cno. Peruata and upper pasture) 6:00 a.m.

Just beginning to get light.

No DC/w today, though a pair of Yellow-throats 6:30 a.m. Fly away silent. Then sit in brush, looking at me, making flight out,1.2. Sайенов.

Silent, no CR or Haaff. Then disappear.

The Yellow-throat is probably one of the species which DC's commonly parading rarely. Like the Yellow-rumped Tanager.
S wholes: 14p.m. Suddenly flushed a whole family of yellow-throat s, including 3 adults and 2 or 3 young (with short tails and yello w-at-the-gape) Birds hopped and flew about nervously in the bushes. Uttering lots and lots of thin, high-pitched, moderately loud "tsceeececece " notes, interspersed with a few slightly different end "tscecececal " notes. Two types of notes intermingled, flight ly variable in length. Quite like ECR's, but slightly hoarse. Some with a slight but definite melodic undertone. (It is possible tha t some of the ECR's I have heard previously were also slightly hoar e, but, if so, I certainly overlooked it.) These notes were certain ly uttered by at least one adult and one young bird (probably by all the birds of the group). The adult (I had extreme CR, moderate to Hafff, and moderate fluffing of the underparts throughout the period the notes were uttered. But no Bowing or Et. !? The young bird (s) did not perform any ritualized movements or assume any ritualized postures while uttering the notes. Just not 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.

Their hoarse ECS were quite reminiscent of the "tscececece " and "notes of Brown-capped Chick-touragers.

This is another, independent, indication that Atapetes is
very close related to chlorocephys
These patterns are probably perfectly intermediate between the
HAC patterns of tanagers and the thin "WEEEE" type battle notes
of Emberiza 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 "hedge"
of tangled vegetation about 20 ft away from me).
This incident is another indication that escape is as strong
as, or stronger than, attacks when ECN's are uttered.

Atlapetes, I
April 15, 1962
Cara Pinta

Working at Lewis's place this afternoon.
3:40 p.m. Suddenly come across what seems to be a boundary clump
of 3 Yellow-throats, 2 3 birds. Uttering lots and lots of
ECN's, nearly continuous. Notes might be transcribed as "Zeeeeeeec"
or "Weeeeee." Only slightly buzzy. Also quite a lot of short "chirps"
notes almost exactly intermediate between "Frit" and "Fack".
These "SNN"'s sometimes sniffling. Most often in brief series, 3 (possibly 4)
notes at a time. These brief series no accelerated as to usual Brief
R's. Reminiscence of R's of Piranga in sound.
I think the R's were usually only ever given by birds hopping
from perch to perch, but possibly also by birds which were momentary
stationary. The birds also did a good deal of Bowman during this
incident. Rather irregular, not including real stt. Accompanied by at least some CR. Couldn't see if Haffy also present or not. May (at least some) of the ECN's must have been uttered during the Bowling.

This behavior almost certainly not provoked by me, as I hear 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 continue Haffy and CR, and a little irregular Bowling. Apparently you to silent.

Altapetes, April 17, 1947
Ceno Punta

Working along ravine at upper border follows this afternoon 3:05. Came across 2-3 Yellow-throats uttering lots of ECN's with lots of Bowling. No where else. Little or no CR or Haffy. Perhaps reacting to me.

Altapetes, April 20, 1947
Ceno Punta

Working along ravine just above ravine this afternoon. Flushed a single Chestnut-cap 5:55 pm. The bird utters a ECN's as it leaves from the undergrowth, in flight. Quite elusive the
Ecn's of Yellow-treats, but not at all hear or busy. Then perches on twig about 15 ft away. In concert. Making Bowing int. Lows. Also lots of TF's. Few or (more probably) no WF's. At first utterance of "Frit" Notes. Then silent. With extreme CR and Whiffy throughout. Seems like 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 20 ft further away. Again perches on branch, with Bowing int. Lows. TF's. extreme CR and extreme Whiffy. One more general shake-out of plumage. Quite silent. Then flies off and disappears.

This incident would suggest that Ecn's are higher in intensity than "Frit" Notes, and that "Frit" Notes are higher in intensity than silent CR and Whiffy. Probably all produced when escape stronger than attacks.

Altañetes 1
April 21, 1962
Cerro Picacho

Working along upper edge lanes and ravine this morning. At a certain time, there is an outburst of high thin songs which sound as if they were uttered by chiefnut-capped Bick Frickes. Phrases like "Ta-zeer zeer ta-zeer zeer zeer zeer..." etc. Can't hear the birds singing, some apparently hidden by way down. Others moderate, high in trees.

There 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 in quality. Comm
Attapetes, Apr. 25, 1962

At one point in the typical chestnut-capped habitat, obviously single bird. Followed by a J..ta-zeeee-zeeee-zeeee-zeeee.

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

Quitting?? Followed immediately by more song phrases as before. Then鸟类, jumelo Twitter and song phrases. Then more song phrases alone. Then more nature song phrases and Twitter. This sounded as if better by single bird, then a song phrase, followed immediately by a Twitter. Recent loud to Blue-black Grosbeak ?

7:10 Come across a single chestnut-capped. Attributed very nervous about me, silent. Does lots of Boving (high position much less extreme than in my drawing of last year). With extreme CR and Thelf (at first gradually declining later). Also lots of TF’s. All extremely V-D and actually lateral. All with Fun. (May be charted as at all times but more so during the TF’s).

Attapetes 1

April 25, 1962

Cerro Punta

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

1:30 AM Single chestnut cap flying steadily. Repeating identical phrases "Ta-zeeee-ah ta-zeeee-zeeeee." This time I can actually identify the bird, although I can't see it well.uttering phrases while axeing apparently. No wing movements. Little or no CR and Thelf.

The "Zeeee" sounds are slightly lower. Does it mean that are closely related to Eow's? Does this mean that the songs of this species are at least partly histrionic?? If so, their evolution is somewhat problematical!!
I think that there is considerable individual variation in the songs of this species. And that the songs of each individual are rather stable. This must facilitate individual recognition.

This bird sings only a few minutes.

Alta Bates

May 17, 1962

Pikachu

Working near Hono this morning. Annie at dawn. Flight saw from time to time.

5:55 a.m. Came across torquatus singing single bird. Moving about rather nervously on ground and on very low perch at base of thicket. Song composed of "ta-reeeeteet" and "seeeeteet" notes. Former more frequent than latter. Apparently uttered in random sequence. Indeterminate series:

"ta-reeeeteet ta-reeeeteet seeeeteet ta-seeeeteet ta-reeeeteet ta-seeeeteet seeeeteet reeeeteet ... " General tone quite reminiscent of chick-a-dee.

Definite rattle undertone to notes. Especially in "seeeeteet"s (with both monosyllabic and bisyllabic notes). Rhythm of song rather variable. Sometimes pauses between notes quite long, sometimes shorter than notes themselves.

This song is obviously homologous with both song of chick

mut-cap and 1C of Yellow-throat.

This morning I got a far glimpse of the bird actually singing. Handle many one of a variety of vireo, pre-loch, postures. With

Rand and Tiff and Bill opening relating with notes. Sometimes answer joined by fluting, but no special wing movements. Possible
some notes uttered while bird is actually hopping. Song is very prolonged. Bud still uttering notes (although somewhat less frequently on the average) at 6:20 a.m. Then stops a few seconds later.

None of these notes to have provoked any response from other birds.

6:34 a.m. Come anon another single torquatus singing. Notes even more variable than those of first bird. "sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t...

This time I don't see the bird until it flew away (frightened by an intruder), but it was obviously perched near the bottom of a thick hedge during the song.

6:40. Same bird starts again. "sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t-sceeeec-t..."

Again hidden from my sight. This again when frightened. Obviously single.

Come back to area where 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 "sceeeec-t" and "sceeeec-t-sceeeec-t" 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 "sceeeec-t" type notes may be higher in intensity than "sceeeec-t" or "sceeeec-t-sceeeec-t" notes.
Arrived camp place 5:42 a.m. Not quite light yet. Infusoria songs begin 5:45. At first all "Jeeeseesee-"
feee for few time

Then I hear a few abbreviated "Jeeeseesee, Jeeeseesee" types

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

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

Other birds continue song without R. After quiet period has
began to utter "complete" songs.

6:05 a.m. One bird seems to be uttering songs comme
in "Keeeee, laa, kee laa"

Most birds still not uttering R's at end of song 6:04-
6:25 a.m. Listening to one bird who utters both "incomplete
the" song without R and "complete" songs with R. Usually in alter-
nation. In both cases, the second or louder, the first short note, also
leads to be longer pitched than the first long note. Just as in the long
sum of "incomplete" song immediately above, and the latter were certainly
uttered by a different bird.

Walking near town of Floa this afternoon (on far side of Pichincha). 4:30 p.m. See a single refringebus. Perched on twig making flying out. wings. With CR. Utterings single "Int" 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 "Int" or "Dit" Notes. Occasionally "Dit dit dit dit dit dit dit dit dit dit dit..." These notes would appear to be real locomotory notes. This may be another resemblance to the BCBT. (I might stress the fact that the birds obviously were not alarmed by me during the period these notes were uttered.) Eventually the birds move off, but I can still hear them uttering "Int" or "Dit" Notes. 4:48 p.m.

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

Birds back in sight again 4:52. Believing more or less as before. One of them curvature right of me and loops away. I think it was odd to react more than usual, in extreme CR, as it left. The CR of this species is probably also an indication of escape.

Around 4:00 p.m. this afternoon, I was walking rapidly along a path above Floa, in a heavy rainstorm, when I suddenly heard a long burst of torquatae "seececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececececece
May 30, 1967

I saw a single torquatus hopping & feeding along the side of the road. I immediately told Galaza to stop and hopped out of the car. As soon as I got out, I heard that the bird was uttering "seeecaeet" and "seeecaeet" notes. I don't know if it was uttering such notes beforehand, or if they were a reaction to my appearance. In any case, I got a very good view of the bird. It hadCR all the time it uttered the notes. Quite unlike, like the CR of the Orange-billed sparrow- sketched in my notes — not like the CR of torquatus during boring described a couple of years ago.

No flyoff. No other special movements or postures (except fluffing, of course). As I stood still, the bird gradually hopped away graduallv, remaining silent until after that.

This might suggest that the "seeecaeet" and "seeecaeet" notes of this species are at least partly hostile. Is this primitive?

Is it also one of the "songs" of other spp. of torquatus?

Altapeces, I.

May 31, 1967

Padrieca

Working near Jloa this morning. Am up 5:30 a.m. Still quite dark.

Just at 5:30, there was a burst of DC. By at least 2 birds. One uttering "keeoo" or "feeeoo" notes, with an occasional "kee" interrupted. The other uttering "keeoo" or "keeoo" notes and "kee" notes in regular alternation.

"keeoo-kee keekeeo kee keekeeo kee... " This burst of DC stopped within a couple of minutes. I think it must have...
been uttered by birds which were awakened by the arrival of our car. It was followed by a period of silence, during which no similar notes were uttered.

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

5:34 a.m. I go back to car to get my tobacco and make some noise in do doing. This seems to provoke another burst of DC. Again subdues 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 sifimélia song in exact areas where DC came from.

But there are sifimélia singing some distance away. Watching one perched in tree. All songs without R, some phrase "Kee-yoo-kuli-kuli-kuli." Others "Kee-yoo-keece-kuli-kuli-kuli-kuli."

First 2 notes of latter quite like DC Notes heard earlier. Bend uttering vinelk wine, posture, with CR. Tail horizontal. To-e-wing movements.

4:10 a.m. Come across 2 or 3 sifimélia (possibly same pair observed yesterday). Feeding & hopping along hedge. Utter lots of "CN", both single and in series when they are obviously nervous about me. Is my interpretation of this pattern wrong?

Once, when one bird came close to another, one of them apparently uttered harsh, hoarse, "Zulu-zulu-zulu" HAC?

Poor another sifimélia singing 4:25. Again no R's.
Atteytes, I

May 27, 1942

Chichesten

Walking in same place as yesterday morning. Arrived

3:25 a.m.

Found the whole area covered with nidians & cows! But the DC still begins immediately. One bird:

Hitting "keeyoo". 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...

keeyoo

Then falls silent for a few seconds. Then starts again. At approximate same time, 1 or 2 other birds begin DC. More or less as yesterday. One bird repeatedly utters "keee keee keeyoo keee keeyoo keee keee keeyoo...

All birds moving about during DC. I have flash light on areas where sounds are coming from, but can't see a thing. 9-9 birds are well hidden in-hedge. Thus reminiscent of Yellow-throat.

After DC has continued for some minutes, at least two birds begin to interject doublets of short descending notes "keee keee" reminiscent of short notes in ordinary day song of mysticola. 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 mysticola. Birds which had been
DC mug apparently fall silent. If this DC is uttered by muhunca, 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.

5:36 am. It is now quite light. And at least 1 muhunca
has begun to utter a song in the hedge from which the DC came (alth
gough not exactly in same place). Some songs with R. Then all with
out. Bird seems to be moving down toward where I watched a
bird singing yesterday. Yes! It lies now, 0:105, reached area
where I watched it yesterday. All its songs still without R now.

Most song composed of 5 notes. Only a few of 4.

It looks as if several 1 muhunca sleep close together in same
hedge here. They move apart to own territories to sing there. (The
dc mug bird I followed most closely was moving in the opposite direction
from this singing bird here.)

Singin bird flies away & shuts up 2:09 am.

This bird certainly appeared to be completely unmated.

6:13 am. The same or (more likely) a different bird sung
again further away. Regular song. No R, but extra notes added at end
of lines essentially double. "Keeyoo-kroo, kuu-bu-bu-bu-keee
new new..."
Attepecos, May 22, 1942, III

8:35. Suddenly such a single mufincher. Very close. Hops, hops, hops, & flits, irregularly. With extreme CR and definite MCL.

Throat feathers seem to be short.

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

Wedding near Hono this afternoon

4:42 p.m. Suddenly such 1 or 2 mufincher. Bird flies off.

Uttering CN's in usual failure. Possibly also utters 2013 thin, high-pitched, plaintive "Seececot" notes!!

5:50 p.m. I can hear torquates "Seececoo..." and "Seececoo...

Ut" Notes coming from area where I first heard such notes this year. Can't be heard, but it is coming closer. Then it moves away again!

Attepecos,

May 23, 1947

Pelucha

Wedding near Hono this morning

5:50 A single torquates suddenly begins to sing inudge. All notes "seecece - out"

Repeated one night after the other. Bird moves along hudge. Apparently with CR. By 5:58, it is uttering more conventional "Seeceee - out". By 6:00 a.m. uttering wunigled "Seeceee"'s and "Seeceee - out"'s. Plus one "Ta - seeceee..."
By 6:04 most of the notes were "Ta-neeceee". Some of the "Ta-neeceee" very low near toward end. Others len so... 

7:15 a.m. See another single torquates singing. Most notes "Ta-neeceee" or "Ta-neeceee-it". 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.

(Post noted that this bird had white on the center of its breast and belly, as well as on its chin. So it is definitely torquates.)

Atlapeces, May 23, 1962

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Walking in here this morning.

A torquates begins singing by 5:15 a.m. Long "taa" when this (quite as long as ordinary "loceeeedee") "Muet-sou"'s "Muet

neeceee"'s and "loceeeedee".

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

7:35 a.m. Come across pair of my friends feeding in hedge. Appar

ently undisturbed by me. Uttering notes absolutely constantly while

moving around. Lots of rather soft "fit"'s or "fit", both sung and

in short verses. Apparently ordinary "CN"'s. Also lots of soft, rather

loarse "teee " or "zeee " Notes. Two types of notes seem to intergrade.

Birds also occasionally utter "Zee-woon". Actually single, sometimes 2

or 3 in races. Then sounded almost as if they might be intermediate

between "fit " and "zeee " 1s. Couldn't see very well what the birds
were along with the different types of notes.

Once one of the birds hopped out of the hedge, saw-me, uttered
one "heal" note, much lower and harder than the "heal" the birds had
been uttering inside the hedge, and then hopped back.

May 25, 1942
Atacasa

Arrive usual place 5:28 a.m.

Kushinchas apparently DCing. Mostly "Kee" or
"Kew" notes. With an occasional "Keeyoo" or "Keeyooce" interjected.

Every once in a while a series of short descending
notes (also) interjected. "Kew-kew" or "Kuh-kuh-kuh-
"Kuh-kuh-kuh-kuh" interjected. Almost typical "day song".

Too dark to actually see the birds.

General release falls 5:38 a.m. Then a second round
of DC, less intense than before. Then silence. Then another
short burst of DC. Then silence again 5:42.

First absolutely typical "day song" with R.

Heard 5:45 a.m.

4:18 a.m. Hear a brief burst of what is almost a typical
"loggeries" song. But don't actually see the bird.

Wednesday near River in the afternoon.

5:00 p.m. Come across 1012 Kushinchas. Bird was quite silent
before it saw me. Then uttered "Tit" as usual when I appeared. They moved around briefly and shut up immediately. So "Tit" may be hoquet (SHN's?) after all.

Altapeces, I
September 18, 1942
Teleferico #1

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

1. Crested-capped. I saw a single bird of this species here, above the station, at 11:15 a.m. However, silent. CR, NF, and may silent int. moves. Possibly trailing after a mixed flock in trees (flock included Black and White Warbler, some Redstart etc., others).

2. Unidentified form, no. II on list. The one that looks like helicoptera near Quito, but is darker below and has black moustache. I have only seen this with mixed flocks. Always, I think, in pairs. For notes on Helicoptera, I shall refer to this form as "P" for the time being.

3. Unidentified species, no. III on list.
I first saw this species near Minurumba and Cacate yesterday in the relatively dry low-country.
I shall call this bird "RM" for the time being.

Scientific name is

A single bird was seen in a bush at the edge of a dry corn field, near Minurumba, yesterday at 6:10 a.m. Uttered lots of "Juck" CN's or SHN's. Also a few soft, thin, song phrases
More or less comme ça: "Tuck tuck tazee zeezeezaawa."

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

A pair was seen near caenite 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 lot of flight into, mous. Also uttered lot of their soft "Yeeet" notes, PK's? Then flew into another bush some distance away. Uttered "Ja see see see srrrr, " 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.

Altapectes, Sept. 18, 1962, II.

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 male Silvella Pacalopterus for as long as I watched them. Associated with a single geer 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 "Jit"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 to be called a Warble. Followed by R. This is un
Turin, followed by 3 or (less frequently) 4 "Teo" Notes. Sometimes R and "Teo" were repeated in a single song. Sometimes the "Teo"'s were uttered before the R, but this was relatively rare. Songs usually with CR. In lower or pre-loco passages.

\[I might add that once, a few days ago, when I came across some P. I's unexpectedly, one bird went into a silent, modulated, "alert", high-brow-like posture (quite like the corresponding posture of the Chestnut-cap) with CR. With one actual Bowen's.

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

Altapetes, II Sept. 15, 1947 Road to La Azulita

seen several WM Altapetes around here this morning.

7:10 a.m. 7600 ft. See what is probably a single WM Altapetes with mixed flock, including 1 BCBT, and unidentified warbler (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 Chlorostilbon resplendens 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.
Altapetes, Sept. 23, 1942

9:55 a.m. 14000 ft (same place mine bird teens earlier)

[Handwritten text]

This species does not seem to be as frequently associated with vocal songs as in the PL Altapetes.

Altapetes I  

September 23, 1942

Parana de Vega

Approximately 7:00 a.m. 8400 ft I suddenly saw a single PL Altapetes sing, song quite characteristic "Sweet fecoo fecoo fecoo fecoo"

[Handwritten text]

I had heard similar songs (Loto or them) all morning, ever with before singing, without being able to see the singing birds. Some variations. Yes, occasionally a 4th "feecoo" is added. Much more frequently the song is abbreviated. When abbreviated, the first "Sweet" is usually the first note to be dropped. Then one (my range two) of the "feecoo"s. None of these songs was associated with R (or chatter, as far as I could tell). (So the R must chatter heard a couple of days ago must have been largely or completely breast.)

The bird actually seen singing this morning was perched...
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
myrmecia. Head pointed diagonally upward. Some CR.

The other birds heard singing were in underbrush. Though
throughout this whole area of thick brush and scattered trees. Well
hidden.

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

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

Some place as yesterday. 5:30 a.m. Heard first PL songs.
Beetle more varied than songs heard yesterday. First song heard
"Feec feec feec." This followed by more elaborate phrases.
"Treet-treetreetreet" "Treet-sa-reetreetreet" "Treet-
sa-reet feec feec feee 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 alderberry. "Treet-treet
feec feec feec" most common phrases.
Same place as yesterday. Pair of PL's feeling by themselves. One flies to join the other. Joining bird utters soft, high, thin "warble" (partly composed of "ta-ta-ta-ta-lee-lee-lee-lee" type components), which changes gradually but rapidly into R, and is then followed immediately by 3 "tsee" Notes as it comes in. All this as greeting!! Without CR. Then, as the birds continue to move through shrubbery, 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 - Tsee as before. Sometimes R followed by Warble!!

Then birds fly to join flock including Pteropterus XX and Chlorophonia. 8:00am.

Alert Posture
with CR

Clim's white, breast & belly gray

9:03 Come across what I assume the same pair of PL's, now feeling by themselves. Still "greeting" constantly. Much as before. Just noticed one more type of variation: Warble - thin high full "sreeeeeee" -- ordinary R (low and wooden) - "Tsee". This
Full reviewer intermediate between "sececece" or "beececece" of
narrow and ordinary P.

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

This is by far the mostest larkish finish I have seen except for
Pachyphorus. Obvious not coincidental that it play same vocal
role as latter.

Allepeters, I

September 26, 1942

Pampa Las Vegas

Our lark starts singing this morning by uttering lots of phra
ses like "insect-in-wheel wheel." This is obviously just half of
"complete" song. It would about 5:15 that this lark starts to add
"trill" notes to song.

Walking along road 7:15, come across same pair of PL's that
ever roamed yesterday. Just as now, today, in the same way. They
realize that there is (are) 1 or 2 more PL's nearby, also uttering same
"greeting"-identical calls. General hubbub. Coming back 7:30, come
upon 1 or 2 PL's same place. Very quiet. After "free," see was
so the members of this species seems to increase near boundaries of
territories, mimic way as in Pachyphorus. Presumably serves
same function.
Altrepites, I

September 29, 1962
Parano de Quera

5:35 a.m. In area where Tafs are common. Alpine and sub-arctic below-paramo itself. Hear PL Altrepites song. Rather disorganized when when it starts. First attempts consist of nothing more than 2 or 3 "Kecoo"s. Then the first part of the complete song was repeated, by itself, several times, at irregular intervals. Only after this, were typical complete song uttered.

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

7:50 a.m. See (another) pair of PL's. Helent, except for "CN". Alone when first seen. Then a Taf appeared briefly on 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 Altrepites (which I shall call "PR"), no. XIV, another new species which may be Altrepites, no. XV; and, possibly, PL. A pair of the first and third, and three of the second.

I shall mark PR ** for 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 ringnecker but with the crown stripe yellow in front and white below.
Altapetes, sept. 29, 1942, T.

The PR's are the birds that utter the 'wren-lie' song. men-lie it is today's motto. Rapid and powerful twittering or warbling. Usually begins "see see see..." After this, its structure is difficult to distinguish but does include "ta-seeeet" or "ta-seeeet"'s. The whole thing sounds very much like a speeded up version of the songs of much Altapetes, as the chestnut-capped 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 Quera, I came across another pair of Altapetes which were almost certainly PR's. In unrecorded circumstances, 5:45 p.m. These birds appeared to have buffy fronts to their crown stripes, and their upper bodies (but not their facial markings) appeared to be medium gray (rather than black) or even olive-gray. Was this apparent difference due to different light ??

These birds uttered "see-seet" 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.

Altapetes, T. September 30, 1942
Panama de Quera.

Wooden in place slightly above yesterday's. Rainy slightly wetter. More turns. Many ants, it is raining this morning.

Near both PR and PR Altapetes around 6:00 a.m. Can't see...
The birds, but they can't be far apart. Associating with one another.

Finally got decent views of PR. Back and wings are slate colored. Not too very much lighter than frontal mark. Front of crown is more orangish-yellow than underparts, but not as much. Yellow underneath marked with dusky, or streaks.

This bird in mixed flock. Possibly serving as leader. With

White-bearded Flycatcher, and Hymenochirus, possibly others.

This bird apparently joined ignate after a minute or so.

Song as "greeting." Delivered in unvocalized posture without

CR.

To my knowledge, I haven't heard the local PR's utter the
very loud "greeting" patterns which were so common at times near

Mandal. With local form intermediate between Miranda form and the

Quito-leucocephalus vi grangeriis behavior?

Speak of the devil! Howz, c. 1:30. Hear burst of what sounds

like PR "Warble" followed immediately by "Jecor" Notes. No R.

Can't see bird(s).

Still, these birds are certainly quieter on the whole than the Meri

dales.

The PR Altagrutas seem to be stimulated by the sound of

Q. leucopharynx singing. Why? Why isn't 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 certain. The same

birds as in mixed flock yesterday. I am now beginning to

think that PR's may play a definite, special, vocal role in the

mixed flocks. SEE TODAY'S NOTES ON MIXED FLOC.
ks. While in the flock(s), the PR's uttered a number of songs. Most "Warbler" like the ones uttered yesterday and earlier today. Apparently, mostly as "greetings" (altillo the sounds were never really audible when these songs were uttered in the flock. One burst of "Warbler" was definitely preceded by R's, like the R's of PL's. Others included definite R-component (drieeeee type) within themselves.

The songs of this species are really remarkable. Warbler-like (but not much like the local Brains) and diglossine-like. Is this mimicry? Designed to attract the local diglossines?????

Later, in the morning, near Guana, I saw a pair of PR's which were quite alone (except for a group of Sparrow's, 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.

Attapeles, I

October 24, 1947

Mit's above Bogota

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 in this area, I think the sounds must have been uttered by PR's (altillo) never so in the birds actually singing. The songs were commune...
"Feeeee-feeooo-fee-eeee-fee-o"  

Sometimes the "seecccc" was replaced by "sreeeeccce...."  

During intervals of such song, I also heard an unknown bird uttering thin high-pitched notes in regular indeterminant series "sseeec... sseeec... sseeec... sseeec... sseeec... sseeec... sseecc...."  

These sounded exactly like PN's of lots of Altapetes. Also, utters of PN's? A form of DC?  

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

Thus song (?), proportions, or color pattern would all suggest that the PN is quite closely related to the Yellow-throat.  

October 30, 1907  

Altapetes.  

Porqueron de Tello  
Western Andes  

...a single gutturalis hopping through uncovered scrub here,  
by road, 4700 ft. 4:15 p.m. Fitches "seeec". Apparently alone,  
Not associated with birds of other species.
Hand what were obviously Yellow-throats singing this morning at dawn. No D.C. One bird, probably the bird seen yes
terday, repeatedly uttered soft phrases, each of which was more or
less comme ca: "3 zee-3 zee-3 zee." Other birds were
heard to utter phrases which were at least similar (I couldn't tell
if they were identical or not). The notes and loudnesses of all these phra-
ses seemed to be identical with the corresponding features of the Yell
ow-throats illurauquiri.

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

This morning, ca. 7:00 a.m., down in the Andes region below
Puela, 7000 I saw a single Bush-finch, apparently the "PL"
A. schistaceus. 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 white tailcrest
merging gradually into medium gray of rest of underparts (as they dark
en than the underparts of PL's in northern Andes ?? ??), otherwise
datey or blackish above.

This bird was in an area of semi-open scrub, including low-
lumber, tufts of grass, and trees only a few feet tall.
I first became aware of the bird as it sang songs composed of a variety of notes. Most frequently, "Whit wheeooos". Also descending 3-note patterns: "Whit wait what". These two types of vocal patterns varied apparently at random. But "Whit wheeooos" are always more common than descending 3-note verses. Every once in a while, the bird would also insert single "Wheeoo" notes. Also varied apparently at random.

The vocal patterns probably very to homologize with patterns of PL's heard in other areas.

While I first saw the bird, it was apparently alone. Uttering vocal patterns while on stub, 2-3 ft above ground. Usually in a perched mine-bird's mummified posture. Sometimes with crown feathers erected down. At other times, with crown stuffed (so that the top of the head rounded round). No CR. Occasionally song letters in bird moved through the lucrives. 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 regular interruptions by periods of silence.

Suddenly, 4:20 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 wood (a long branch of grass)!!!

Then, suddenly, one bird flew-straight at the other. I think that the bird that flew was probably the Q and probably the bird that sang earlier. The bird that was approached was probably the Q, and probably
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 drop, in somewhat the same way as the Yellow-throated Finch. One bird went into extreme fight. This was assumed by the bird immediately after retreating. I think the bird was the 7 and/or the bird that had flown to the other. It commenced:

Very extreme.
Wings drooped (throughout all the 7th Pictures, and the Low-Bow Pictures – see below).
Tail widely spread (in all 7th Pictures, and also in all Low-Bow Pictures).

The bird faced its opponent at part way in this posture, revealing what was really very very conspicuous.

After the bird stood in this posture for some seconds, 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 destructive posture, which seemed to be a form of Low-Bow Picture, with a trace of continuing BU, as in ft. 13 move 13.
Then there was some more "fiddling" back and forth between the two birds. Again, I couldn't follow it. One bird (♂♀?) repeatedly entered & bowed to but never initiated courtship. Possibly also traces of courting.

I think that all the really extreme ritualized postures during this counter were silent. But then one of the birds (presumably the ♀♀) began to sing a weak Pt. Posture just single whistles. "Whereas" this then the other elements of typical song were added, as the bird gradually relaxed and dropped the Pt.

4:30 - 4:43, I apparently alone again, singing full songs as before, in more or less ritualized perching posture.

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

Attapeet, I April 4, 1963 Henry Tarquin

7:18 a.m. 91700+ Working intense 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. Continue so