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 NOTES ON COSTA RICAN BIRDS, WITH DESCRIPTIONS OF SEVEN
 NEW SPECIES AND SUBSPECIES AND ONE NEW GENUS.

BY ROBERT RIDGWAY.

With their accustomed liberality, the authorities of the National Museum of Costa Rica have sent me for examination a large collection of birds from that country, and given permission to describe any that were new to science. The collection, while consisting chiefly of species that are already known, includes several that are new, one of them being a remarkable new genus of uncertain affinities, besides others which are worthy of mention on account of their rarity. For the privilege of describing these interesting novelties my thanks are specially due to Señor Anastasio Alfaro, the accomplished director of the Costa Rica National Museum, and to Señor José C. Zeledón, already well known for his active work in developing the ornithology of that interesting portion of Central America.

Zeledonia, genus novum.

CHAR.—Somewhat like *Catharus*, but wing still more rounded (primaries very little longer than secondaries), first quill about four-fifths as long as second, tail very short (much shorter than tarsus and middle toe together), rictal bristles very weak, and loreal feathers well developed and closely appressed. Coloration (of type): Dark olive-green above, deep slate-gray beneath, the crown brownish orange, with a black stripe along each side.

This remarkable new genus is so peculiar in its characters that I am in much doubt as to which family it belongs. The very short rounded wing with long first primary, full and closely appressed loreal feathers, and soft texture of the plumage in general strongly suggest the genus *Scytalopus*, and I was at first inclined to refer it to the *Pteroptochidae*, to which *Scytalopus* belongs; the coloration of the head strongly suggests that of *Basileuterus coronatus*, and the loose-webbed rectrices with finely acuminate points, as well as the loosely-webbed remiges, slender bill, and long-booted tarsi with sharp posterior edge remind one of *Catharus gracilirostris*, to which genus Mr. Alfaro, the collector, had referred the bird. There are apparently only 10 rectrices, and I am able to count only 18 remiges, the latter being the number possessed by the above-mentioned *Catharus*,* which, however, has 12 rectrices. The general resemblance to the genus *Xenicus*, of New Zealand, is very remarkable, *X. longipes* being of nearly the same size and proportions, as the following will show:

* *C. melpomene*, *C. frantzii*, *C. dryas*, *C. occidentalis*, and related species possess 19 remiges.

	Length (skin.)	Wing.	Tail.	Culmen.	Tarsus.	Middle toe.	Number rem- iges.	Number rec- trices.	Covering of tarsi.
<i>Zeledonia coronata</i>	4.35	2.40	1.55	.57	1.02	.60	18?	10?	Faintly scutellate in front with sharp posterior edge. Do.
<i>Xenicus longipes</i>	4.25	2.20	1.15	.62	1.02	.65	19?	10	

The difference in coloration is not great, both being plain olive or olive-green above and plain grayish beneath; but while *Zeledonia* has a large brownish-orange crown-patch, bordered laterally by a black stripe, *Xenicus* has a brown pileum, bordered laterally with black, and a broad white superciliary stripe.

Xenicus is now referred to the *Clamatores*; but whether *Zeledonia* is a related form belonging to the same suborder or an aberrant oscinine type, can not, probably, be determined without examination of its anatomy.*

I have named this genus in honor of Señor Don José C. Zeledon, of San José, Costa Rica, to whom chiefly we are indebted for our knowledge of the richly diversified ornithology of that interesting country.

† *Zeledonia coronata*, sp. nov.

SP. CHAR.—*Adult female* (type, No. 116591, U. S. Nat. Mus., Laguna del Volcan de Póas, Costa Rica, Nov. 23, 1888; A. Alfaro).—Pileum orange-ochraceous, bordered laterally by a rather broad stripe of black; rest of head (including superciliary region), together with under parts, except sides, flanks, and under tail-coverts, plain slate color or slate-gray; hind neck and other upper parts plain dark greenish olive, tinged with brown in certain lights; sides and flanks similar, but paler; under tail-coverts olive-grayish. Bill and feet black; iris black.† Length (skin), 4.35; wing, 2.40; tail, 1.55; culmen, .57; tarsus, 1.02; middle toe, .60.

† *Campylorhynchus capistratus* (LESS.).

A pair of adults belonging to the Costa Rica National Museum agree with other Costa Rican specimens, as well as those from Nicaragua, in the characters already pointed out by me (these Proceedings, Vol. x, p. 507) as distinguishing *C. capistratus* from *C. castaneus* RIDGW., of Honduras and Guatemala, except that the back is more deeply and uniformly chestnut. Still the lower back is distinctly spotted with blackish and pale rusty, which is not the case

* Since the above was written I have received from Mr. Zeledon skeletons of *Zeledonia* and *Catharus gracilirostris*, and they are now in the hands of Mr. Frederic A. Lucas, who will prepare a paper giving the results of his comparisons. Mr. Lucas informs me that so far as his investigations have gone they show that *Zeledonia* is not related to *Catharus*, but he is not yet prepared to give any further opinion as to its relationships.

† Fide MS. on label.

with either the type of *C. castaneus* or a specimen of the same form from Guatemala.* The distinctly larger bill of *C. capistratus* is well shown by these two specimens, which measure as follows:

No.	Collection.	Sex and age.	Length (skin).	Wing.	Tail.	Culmen.	Exposed culmen.	Tarsus.	
18	Costa Rica Na'. Mus...	♂ ad.	6.90	3.15	2.85	1.02	.85	1.00	Trojas, February, 1886.
19	.....do.....	♀ ad.	6.40	2.95	2.50	1.08	.90	.95	San Mateo, January, 1886.

Microcerculus orpheus, sp. nov.

SP. CHAR.—Somewhat like *M. philomela* (SALV.), but larger, with much longer bill, grayer under parts, and chiefly unbarred upper surface.

Adult (type, No. 115037, U. S. Nat. Mus., Pacuare, Costa Rica, 1876; Juan Cooper).—Above plain burnt-umber brown, duller anteriorly, darker on rump and upper tail-coverts, some of the more posterior scapulars showing very indistinct dusky terminal bars, and upper tail-coverts very indistinctly barred with dusky; wings dusky blackish, the coverts and tertials broadly bordered with umber brown; tail dusky black. Sides of head light grayish brown, fading into dull brownish white on chin and throat. Chest dull brownish gray, many of the feathers with a darker central spot; breast and middle line of belly with these central dark spots considerably larger and darker, triangular or sagittate in form, the broad terminal margins of the feathers paler brownish gray than the general color, producing a decidedly varied effect; sides, flanks, and under tail-coverts uniform deep vandyke brown. Bill black, the basal half of gonys and lower half of mandibular rami whitish; legs and feet brownish black. Length (skin), 4.30; wing, 2.30; tail, .95; exposed culmen, .70; gonys, .48; tarsus, .98; middle toe, .65.

This bird is clearly distinct from both *M. philomela* (SALV.) and *M. lusciniæ* SALV., with both of which I have carefully compared it, and it is still less like *M. dauilius*, recently described by me in these Proceedings, Vol. X, p. 508, also from Costa Rica, but inhabiting the opposite side (Atlantic coast). No other species of the genus, apparently, are sufficiently related to require comparison.

Geothlypis caninucha icterotis, subsp. nov.

SUBSP. CHAR.—Similar to true *G. caninucha*, but auriculars olive-yellow or yellowish olive, instead of dull gray.

HAB.—Costa Rica.

Adult male (No. 94415, Costa Rica; Dr. Van Patten).—Forehead (for about .12 of an inch above exposed base of culmen), lores, and orbits, deep black, this ending very abruptly beneath posterior portion of eyes,

* In the Ibis for April, 1889 (p. 235), Messrs. Salvin and Godman maintain that this character is inconstant.

about .50 posterior to nostril or frontal apex; crown and occiput d ash gray, the feathers with distinct dusky shaft-streaks, this dull grayi color changing gradually into brownish olive-green on back and oth upper parts, brightest on lesser wing-coverts, upper tail-coverts, and ta auriculars olive-yellow. Chin, throat, and chest, pure rich gamboge yellow, becoming paler on other under parts, the sides brownish buff and anal region pale buffy yellow. Upper mandible dusky brown, pal on edge; lower mandible whitish, brownish at tip; legs and feet pa brownish. Length (skin), 4.90; wing, 2.30; tail (much worn at tip 2.60; exposed culmen, .43; tarsus, .90; middle toe, .57.

Young male (No. 2028, coll. Costa Rica National Museum, San Jos Costa Rica, August 15, 1887; A. Alfaro).—Entire pileum and hind nec together with back, scapulars, rump, and upper tail-coverts, dull, rath light brownish olive, the back strongly washed with brown; lesser win coverts, remiges, and rectrices yellowish olive-green; middle and great coverts tipped with light yellowish olive. Sides of head nearly lik pileum, the lores a little more dusky; chin, throat, and abdomen, pa gamboge or primrose yellow (new feathers on throat brighter yellow chest pale yellowish olive, deepening into a brownish tint on sides an flanks.

An adult male in the collection of the Costa Rica National Museum (No. 2027, Los Anonas, August 15, 1887, A. Alfaro) is essentially lik that described above, though in more worn plumage.

• *Petrochelidon lunifrons* (SAY).

An adult female from San José (No. 2314, coll. Costa Rica Nationa Museum, September 3, 1888; A. Alfaro) is distinctly this species, as i also the only other example of the genus that I have seen from tha country, also an adult female (No. 68179, U. S. Nat. Mus., date and pre cise locality unknown).* On the other hand, all but one of the Nationa Museum specimens from Mexico (seven in number) are *P. melanogaste* SWAINS. (= *P. swainsoni* SCL.), which is distinguished chiefly by th very different color of the forehead, which is of the same rich chestnut as the chin and sides of the head.†

† *Buarremon crassirostris* CASS.

A fine adult of this rare species in the collection of the Costa Rica National Museum (No. 1169, Rio Sucio, 1881; J. Cooper), closely resemebles the type, but has the sides of the head rather blacker. It meas- ures as follows: Length (skin), 6.35; wing, 3.15; tail, 2.70; exposed cul- men, .55; tarsus, 1.15; middle toe, .75. Upper mandible black, the edge

* It belongs to the collection of the Gabb Talamanca Expedition, the collector's number being 218.

† An adult male from Mirador in the National Museum collection (No. 33572, August, 1863, Dr. C. Sartorius) is exactly intermediate between the two, and is probably a hybrid. The forehead is of a very peculiar light brown hue, corresponding almost exactly with the "fawn color" of my "Nomenclature of Colors."

broadly) pale brownish or brownish white; lower mandible brownish white; legs and feet dusky brown.

yanocorax argentigula LAW. R.

Young male (No. 1268, Costa Rica National Museum, slopes of Irazú, Costa Rica, June 24, 1887; José C. Zeledon).—Similar to the adult, but light bluish mark across anterior part of crown barely indicated; the rest of the crown, occiput, hind neck, and back dull blue, brightest on top of head; wings and tail rather deep blue, and under parts duller and less purplish blue; whitish throat-mark as in adult, but lacking the delicate purplish tinge.

Young female (No. 116580, U. S. Nat. Mus., same locality, date, and collector).—Similar to the young male, but no trace of the lighter mark across anterior part of crown, the entire pileum, except frontlet and nasal bristles, being uniform dull blue.

Four adults, from the slopes of the Volcan de Irazú, present the following slight variations:

Compared with the type they all have the throat-patch decidedly paler, its color being silvery white, with a very faint purplish tinge, instead of light silvery gray, with a very strong tinge of purplish blue. The mark on top of the head is likewise much paler, the transverse anterior portion being silvery white (faintly tinged with purplish blue in two specimens), the longitudinal supra-auricular portion pale purplish blue. In the type, this \cap -shaped mark is throughout of pale campanula-blue tint, but appreciably paler on the broader anterior portion than toward the extremities of the lateral arms. The blue of the remiges and rectrices is also of an appreciably greener or less purplish cast than in the type.

It is possible that these differences may be to a degree owing to different ages of the feathers, the plumage of the type being apparently fresher than that of the other specimens.

The five adults measure as follows:

No.			Wing.	Tail.	Culmen.	Bill from nostril.	Tarsus.	Mid. toe.
No. 67963	U. S. National Museum	♀ ? ad	4.75	5.20	1.15	.65	1.35	.75
No. 116579	do	♀ ad	4.60	5.00	1.15	.62	1.28	.73
No. 1265	Costa Rica National Museum	♀ ad	4.70	5.30	1.15	.65	1.30	.71
No. 1252	do	— ad	4.90	5.40	1.15	.70	1.32	.....
No. 1260	do	♂ ad	4.50	4.70	1.18	.65	1.37	.....

Xiphocolaptes emigrans costaricensis, subsp. nov.

SUBSP. CHAR.—Similar to *X. emigrans* SCL., from Guatemala, but buffy streaks on breast broader and size somewhat greater.

Type, No. 115041, U. S. Nat. Mus., Naranjo, Cartago, Costa Rica, August, 1886; José C. Zeledon.

This bird is described in detail on a subsequent page of these Proceedings.

† *Picolaptes gracilis*, sp.

SP. CHAR.—Nearest *P. lacrymiger* BP. in coloration of the under parts but upper surface somewhat as in *P. falcinellus* (LICHT.), and bill much smaller than in either.

Adult female (type, No. 115039, U. S. Nat. Mus., Monte Redondo, Costa Rica, July 25, 1887; A. Alfaro).—Pileum, hind neck, back, scapulars, and wing-coverts light sepia-brown or bistre, but this broken, except on lower back, scapulars, and wing-coverts, with broad guttate mesial streaks of pale buff, bordered with blackish, the latter almost forming the ground-color on top of the head. Tertiaries, greater part of secondaries and primaries (except basally, where more olivaceous), rump, upper tail-coverts, and tail plain chestnut or hazel, the terminal portion of inner webs of primaries dusky. Sides of head and neck pale buffy streaked with brownish black or dusky brown; chin plain pale buffy throat similar, but feathers narrowly bordered with dusky, producing squamate appearance. Ground color of other under parts hair-brown but this relieved by broad mesial streaks of pale buff, each margined laterally by a narrower but very distinct blackish streak; these markings, especially the blackish streaks, becoming nearly obsolete on belly flanks, and under tail coverts. Bill blackish, with basal half of lower mandible whitish; legs and feet dusky; "iris black." Length (skin) 7.10; wing, 3.55; tail, 3.60; the lateral feathers 1.05 shorter; exposed culmen, .81; tarsus, .85.

The only Central American species at all closely related to the present one is *P. compressus* Cab., which comes rather close in the coloration of the upper parts, which, however, are decidedly more rufescent; but the lower parts are very decidedly different, the lighter markings being in *P. gracilis* much paler (buffy whitish instead of deep buff), and the blackish streaks much broader; besides, *P. compressus* has the bill much longer, and light brown instead of mainly blackish.

† *Sclerurus canigularis*, sp. nov.

SP. CHAR.—Similar to *S. albogularis* SWAINS., but much darker, the throat ash-gray (whitish on chin), the back, etc., deep vandyke-brown and lower parts dark slaty tinged with brown.

Type, No. 115038, U. S. Nat. Mus., male adult, Turrialba, Costa Rica, August, 1886; J. J. Cooper. (Described in detail on a subsequent page of these Proceedings.)

† *Lophornis adorabilis* SALV.

A very perfect adult male, obtained by Mr. José C. Zeledon at San José, October 7, 1886 (No. 1690, Nat. Mus. Costa Rica). "Bill coralline, tip black."

+ *Chætura brunneitorques* LAFF.

An adult male in the collection of the National Museum, Costa Rica, (No. 1609, San José, May 10, 1885, J. C. Zeledon), is brighter colored

than the one from the same country in the Smithsonian collection (No. 5056, San José, August 30, 1883, J. C. Z.). the dusky of the lower parts being blacker and more uniform, the rufous-chestnut collar more continuous in front and richer in color, and the fore part of the head blacker. Length, skin, 4.60; wing, 5.20; tail, 2.

Picumnus flavotinctus sp. nov.

SP. CHAR.—Similar to *P. olivaceus* LAFR., from Colombia, but brighter olivaceous above, lower parts more yellowish, with chest deeper olivaceous, and streaks of sides, etc., broader and less distinct; male with crown flecked with dull light orange, instead of deep orpiment-orange, the spots much smaller and covering a more restricted area; female with white specks on hinder crown and occiput much smaller as well as sparser.

HAB.—Costa Rica (Pacific side) to Panama.

Adult male (type, No. 116593, Pozo Azul, Costa Rica, September 6, 1886; José C. Zeledon).—Pileum dull black, the middle of the crown flecked with light dull orange, and occiput minutely dotted with white; hind neck, upper back, anterior scapulars, and wing-coverts plain dull olive, passing into brighter olive on lower back, posterior scapulars, rump, and edges of middle and greater wing-coverts, the upper tail-coverts light buffy olivaceous; alula, primary-coverts, and remiges dull blackish dusky, the secondaries broadly margined with bright yellowish olive, and primaries narrowly edged with dull olive; tail dull black, the middle pair of rectrices with inner web chiefly dull light buffy and two outer pairs broadly tipped with the same, the outer web with an indistinct terminal spot of dusky, and a pale yellowish margin to outer web. Lores and malar region dull whitish, the latter tinged with pale olive and squamated with dusky; auriculars plain olive-brownish; chin and throat pale olivaceous (paler anteriorly), passing into plain rather deep olivaceous, on chest and upper part of breast; rest of under parts pale olive-yellow, rather broadly but not sharply striped with a dull olivaceous. Bill blackish, feet dusky (olivaceous or grayish in life?). Length (skin), 3.80; wing, 2.20; tail, 1.15; culmen, .49; tarsus, .50.

Adult female (No. 116594, same locality, etc.).—Similar to the male, but without orange markings on the crown, white specks on occiput sparser and very minute, and the general coloration paler and duller, especially the lower parts. Length (skin), 3.30; wing, 2.10; tail, 2.25; culmen, .50; tarsus, .52.

Although this bird may prove to be merely a geographical race of the Colombian *P. olivaceus* LAFR., a male from Panama (No. 53959, J. McLeannan) is decidedly referable to it, having the same dull light orange flecks on the crown and deep olivaceous coloration strongly washed with yellowish on the under parts of Costa Rican specimens, as contrasted with the deep orange-red crown-markings and dull olivaceous coloration, without distinct yellow tinge beneath, of the Bogota bird, of which there are four adult males now before me. It should be remarked, however, that this Panama specimen, compared with the

single male from Costa Rica, has the dull yellowish orange flecks on the crown larger, and the stripes on the sides, etc., narrower and more distinct, thus showing a departure toward the characters of the Colombian form and suggesting possible inosculation of the two types.

+ *Myiopsitta lineola* (CASS.).

An adult male from Naranjo de Cartago (No. 1819, coll. National Museum of Costa Rica, August, 1886, J. Cooper), agrees closely with specimens from Southern Mexico.*

+ *Mimus gilvus*, VIEILL.

An adult from Costa Rica (E. Zarceero, alt. 7,000 ft., March 1, 1887; José C. Zeledon), in the collection of the Costa Rica National Museum (No. 893), exactly resembles in coloration an adult male from Bogota (U. S. Nat. Mus., No. 32691), its measurements being as follows: Length (skin), 9.70; wing, 4.70; tail (feathers worn at tips), 4.90; exposed culmen, .80; tarsus, 1.35; middle toe, .95.

+ *Carpodectes nitidus* SALV.

Immature male (No. 1509, coll. National Museum of Costa Rica, Pacuare, Costa Rica, 1876; Carlos Cervantes).—Similar to the adult male, but terminal third, or more, of five outer primaries and greater portion of the others, slate-dusky; three or four innermost secondaries also marked medially with the same color, which prevails on the last, or terminal half; primary coverts and alulae also mottled with dusky. Length (skin), 8.50; wing, 5.50; tail, 2.90; exposed culmen, .72; tarsus, .95.

+ *Dendronis punctigula*, sp. nov.

SP. CHAR.—Similar in general coloration to *D. triangularis* (LAFR.), but throat spotted instead of squamated, and rump chestnut instead of olive, as in *D. erythropygia*; differing from the latter in much more olivaceous coloration, narrow streaks instead of ovate spots on back, longer bill, and other characters.

HAB.—Costa Rica and Veragua.

Adult male (type, No. 115040, Naranjo, Costa Rica, Aug., 1866; J. J. Cooper).—Pileum deep olive, most of the feathers with very narrow and indistinct shaft-streaks of buff; hind-neck, back, and scapulars, brownish olive (approaching raw umber), the back with mostly narrow and concealed streaks of pale buff; lesser and middle wing-coverts similar to the scapulars, but browner; greater coverts light olive or hair-brown; secondaries, and about the basal half of inner webs of primaries

* A South American form—*Myiopsitta lineola tigrina* (SOUANÉ)—is readily distinguishable by the following characteristics:

Myiopsitta tigrina SOUANÉ, Rev. et Mag. de Zool., 1856, 144 (Venezuela).

Similar to *M. lineola* (CASS.), but rather larger, brighter and darker in color, with black markings on wings, rump, upper tail-coverts, and tail much heavier. (Cf. these Proceedings, Vol. IX, p. 94.)

(except outermost), dull hazel or tawny-chestnut; terminal portion of inner webs of primaries (whole inner web of outer quill), abruptly dusky; inner webs of secondaries (except tertials) shaded terminally, next to shaft, with dusky; outer webs of primaries light raw-umber brown, secondaries edged with the same. Lower back, rump, and upper tail-coverts tawny-chestnut; tail clear chestnut, shafts of middle feathers dusky. Chin and throat pale yellowish buff, the latter marked with small diamond-shaped spots of olive, these growing gradually larger and more fan shaped posteriorly; rest of lower parts light greenish olive marked with narrow guttate spots of pale buff, which become narrow streaks laterally, almost disappearing on sides and flanks; under wing-coverts ochraceous, faintly and sparsely speckled with olive. Upper mandible blackish, with whitish tomium; lower mandible entirely brownish white; feet olive dusky.* Length (skin), 8.50; wing, 4.70; tail, 4.15; culmen, 1.32; tarsus, .90; middle toe, .78.

Adult female (No. 51253, Tucurrique, March 30, 1863; J. C. Zeledon).—Not obviously different from the male in coloration, though the upper mandible is brownish for the terminal half. Length (skin), 9.10; wing, 4.15; tail, 3.75; culmen, 1.30; tarsus, .90; middle toe, .70.

A series of 9 specimens from Costa Rica and 1 from Veragua, compared with exactly the same number of *D. erythropygia* SCL., from Mexico (1), Guatemala (7), Panama* (1), and Rio Truando, Colombia (1), agree constantly in the characters above pointed out, and likewise from three examples of *D. triangularis* from Bogota (2) and Guayaquil (1). The Veragua specimen is like those from Costa Rica, except that it has the whole forehead decidedly russet (the streaks pale tawny), probably only an accidental or individual character.

† *Dendrocolaptes puncticollis* SCL. & SALV.

A specimen in the Lafresnaye collection (No. 2214) in the Boston Society, labeled "*Dendrocolaptes albicollis* VIEILL., s'g, Bahia," is much like *D. puncticollis*, SCL., but is evidently distinct from that species. It certainly is not *D. picumnus* (LICHT.), *D. validus* (Tsch.), *D. certhia* (BODD.), nor *D. sancti-thome* (LAFR.), with all of which it has been compared; nor does it agree with the characters ascribed to *D. radiolatus* SCL. & SALV., *D. intermedius* BERL. (also from Bahia), *D. plagosus* SALV. & GODM., *D. pallescens* PELZ., *D. undulatus* (CAB.), nor *D. concolor* PELZ., descriptions of which have been carefully consulted.

Compared with an example of what seems to be *D. puncticollis* from Costa Rica (No. 42158, ♂, Navarro, Feb., 1866; J. Cooper), it is found to differ so much as to forbid its reference to that species, though it is

*An adult male in the collection of the Costa Rica National Museum (No. 2333, San Carlos, December 20, 1888, A. Alfaro) has the Spanish equivalent of the following inscribed on the label: Iris, dusky; feet, blue; upper mandible, black; lower, white.

* I am unable to find the slightest difference between this Panama example and some skins from Guatemala and Mexico.

more like that species than any other. I have consequently no resource but to describe and name it as a new species, as follows:

Dendrocolaptes variegatus, sp. nov.

SP. CHAR.—Similar to *D. puncticollis* SCL., but much larger, and lower parts much more broadly barred with dusky; length (mounted specimen), 11.00; wing, 5.80; tail, 5.25; culmen, 1.70.*

From *D. validus* (TSCIL.), it differs in being larger, bars on under parts much broader, throat much more distinctly spotted with brown, and in other characters.

SMITHSONIAN INSTITUTION, *June 29, 1889.*

* Corresponding measurements of the specimen of *D. puncticollis*, above referred to are, 9.20 (skin with neck much contracted) 5.00, 5.10, and 1.50, respectively.