

17. *Heteroscelus incanus* (Gm.)

Seen on several occasions.

18. *Phalacrocorax dilophus cincinnatus* (Brandt).

A colony of about one hundred of these cormorants were breeding on almost inaccessible cliffs which rose perpendicularly from the water. Seven nests, examined from above, contained either three or four eggs each. Thousands of this species were observed at Elida and St. Martin's Islands, and San Quentin Bay.

[NOTE.—The specimens obtained are in full breeding plumage, and, so far as the skins indicate, can only be distinguished from the eastern forms, *dilophus* proper and *floridanus*, by the entirely white superciliary tufts, these being wholly black or but slightly mixed with white in the above-named races.—R. R.]

19. *Larus heermanni* Cass.

Common.

20. *Thalasseus regius* Gamb.

Common in April, rare in May.

CATALOGUE OF A COLLECTION OF BIRDS MADE NEAR THE SOUTHERN EXTREMITY OF THE PENINSULA OF LOWER CALIFORNIA.

BY L. BELDING.

[Edited by R. RIDGWAY.]

This paper is merely intended to give what are supposed to be the most interesting results of a winter's work in Lower California. Sickness in May, occasioned by exposure to the hot sun, prevented a contemplated visit to one or more high mountains near the village of Miraflores, and also prevented the securing of specimens of some well-known birds at San José—consequently the list is not as complete as it might otherwise have been.

Some of the species found by Xantus do not appear in the list. Perhaps the most important of these is the rare Cape Robin (*Merula confinis*), which, with *Columba erythrina*, is probably a bird of the mountains.

Most of the Cape species are, as in 1859, abundant and tame.

It appears quite likely Mr. Xantus neglected to report some very common, well-known residents, since these do not appear in his list.*

*The only papers relating specially to the birds of the vicinity of Cape Saint Lucas are the following:

(1.) XANTUS, JOHN.—Descriptions of supposed new species of birds from Cape Saint Lucas, Lower California. <Proc. Philad. Acad. Sci., Nov., 1859, pp. 297-299. (New species: *Picus lucasanus*, p. 298; *Campylorhynchus affinis*, p. 298; *Harporhynchus cinereus*, p. 298; and *Brachyrhamphus hypoleucus*, p. 299.)

(2.) BAIRD, S. F.—Notes on a collection of birds made by Mr. John Xantus, at Cape Saint Lucas, Lower California, and now in the Museum of the Smithsonian Institu-

Others which are recorded from Cape Saint Lucas were probably obtained at other though not very distant localities.

The fauna and flora of La Paz, Cape Saint Lucas, and San José del Cabo, are quite identical, allowing for difference in surroundings and in variety of collecting grounds.

For the purpose of determining the resident species a later stay at San José was desirable, but I was compelled reluctantly to leave the field.

Collections were made at La Paz from December 15, 1881, to March 21, 1882; at San José from April 1, 1882, to May 17, of the same year.

tion. <Proc. Philad. Acad. Sci., Nov., 1859, pp. 299-306. (The new species described in this paper are, *Cardinalis igneus*, p. 305; *Pipilo albigula*, p. 305; *Chamæpelia passerina*? var. *pallescens*, p. 305; the name *pertinax* being proposed, on p. 303, for the Cape Saint Lucas *Myiarchus*, if distinct. Only 42 species are enumerated in this list.)

(3.) RIDGWAY, ROBERT.—On two recent additions to the North American bird-fauna, by L. Belding. <Proc. U. S. Nat. Mus., vol. 4, 1882, pp. 414, 415. (*Motacilla ocularis*, Swinhoe, La Paz, Lower California, January 9, 1882; *Dendroca vicilloti bryanti*, Ridgway, same locality, common in July.)

(4.) RIDGWAY, ROBERT.—Descriptions of some new North American birds. <Proc. U. S. Nat. Mus., vol. 5, 1882, pp. 343-346. (The Cape Saint Lucas birds described in this paper are, *Geothlypis beldingi*, p. 344, San José del Cabo; and *Tallus beldingi*, p. 345, Espiritu Santo Islands.)

The first two papers cited above were based upon an early installment of Xantus's collections, no list of the species subsequently obtained by him having ever been published. I have, therefore, gone over the record books of the National Museum and made a careful enumeration of all the species collected by Xantus in Lower California. The total number of species amounts to 130, of which only 42 are included in Professor Baird's list. Of the species collected by Xantus 34 were not found by Mr. Belding, who, however, obtained or observed 39 species not represented in Xantus's collections. The latter are distinguished in the present catalogue by a * prefixed to the number, while a list of those obtained only by Xantus is given herewith.

1. HYLOCHICLA UNALASCÆ (Gm.). Cape Saint Lucas, January.
2. MERULA CONFINIS (Bd.). Todos Santos, "summer, 1860."
4. MYIODIOCTES PUSILLUS PILEOLATUS (Pall). Agua Escandida, November; Sierra San Gertrude, January.
5. PYRANGA LUDOVICIANA (Wils.). Cape Saint Lucas, September 27, 28; October 20; November 5-17.
6. PASSERCULUS SANDWICHENSIS ALAUDINUS (Bp.). Cape Saint Lucas, September 13.
7. ZONOTRICHIA GAMBELI INTERMEDIA (Ridgw.). San José del Cabo, November 15; San Nicolas, October.
8. ALUCO FLAMMEUS AMERICANUS (Aud.). San José del Cabo, December 6-15; January; Caduana, November 25.
9. ASIO ACCIPITRINUS (Pall). Mira flores, November 25.
10. SCOPS TRICHOPTIS (Wagl)? Cape Saint Lucas (no date).
11. HIEROFALCO MEXICANUS (Schleg.). Mira-flores, November 25; Cape Saint Lucas December 14; San José del Cabo, December, January.
12. ACCIPITER COOPERI (Bp.). Cape Saint Lucas, October 26-31; San Nicolas, October.
13. COLUMBA FASCIATA (Say). Cape Saint Lucas, November 25; Mira-flores, November 25.
14. OREORTYX PICTA PLUMIFERA (Gould). Cape Saint Lucas, April.
15. BOTAURUS LENTIGINOSUS (Montag.). Cape Saint Lucas, November 4; San José del Cabo, November 29, 30.

Several days were spent at Cape Saint Lucas, and other localities were visited, as shown by the specimens which were forwarded to the National Museum.

The people whom I met in Lower California were invariably courteous and kind, and to Señor Grinda, collector at La Paz, I am indebted for substantial favors.

The California and Mexico steamship line deserves credit for free transportation of specimens.

The species enumerated in the following catalogue were common to most or all of the localities where collections were made, those observed at only one locality being given afterwards in separate lists.

1. *Oreoscoptes montanus* (Town.).

Rare.

2. *Mimus polyglottus* (L.).

Abundant.

3. *Methriopterus cinereus* (Xant.).

Very common.

4. *Phainopepla nitens* (Sw.).

Rare on the coast, common in the interior.

5. *Polioptila cærulea* (L.).*

Common.

16. *OXYECHUS VOCIFERUS* (L.). Cape Saint Lucas, October 20-31; November 19-22.

17. *GALLINAGO WILSONI* (Temm.). San José, November 23.

18. *ACTODROMAS MINUTILLA* (Veill.). Todos Santos (no date).

19. *CALIDRIS ARENARIA* (L.). *Fide* BAIRD.

20. *TOTANUS MELANOLEUCUS* (Gm.). San José, December; Cape Saint Lucas.

21. *SYMPHEMIA SEMIPALMATA* (Gm.). (Locality not stated; January.)

22. *HIMANTOPUS MEXICANUS* (Müll.). Sierra de Santiago, January; Cape Saint Lucas; San José del Cabo, February.

23. *ANAS BOSCAS* (L.). San José del Cabo, December.

24. *CHAULELASMUS STREPERUS* (L.). San José del Cabo, December, February.

25. *DAFILA ACUTA* (L.). San José del Cabo, January.

26. *NETTION CAROLINENSIS* (Gm.). San José del Cabo, January, February.

27. *ERISMATURA RUBIDA* (Wils.). San José del Cabo, December, February; Laguna de Santiago, January; Saint Lazaro Mountains, January.

28. *LOPHODYTES CUCULLATUS* (L.). San José del Cabo, February.

29. *PELECANUS ERYTHORHYNCHUS* (Gm.). San José del Cabo, January, February; Cape Saint Lucas (no date).

30. *PUFFINUS GRISEUS* (Gm.). Cape Saint Lucas, August 18.

31. *HALOCYPTENA MICROSONA* (Coues). San José del Cabo, May.

32. *CYMOCHOREA MELÆNA* (Bp.). Cape Saint Lucas.

33. *BRACHYRHAMPHUS HYPOLEUCUS* (Xantus). Cape Saint Lucas, San José.

34. *BRACHYRHAMPHUS CRAVERI* (Salvad.). Cape Saint Lucas.

*The only specimen sent by Mr. Belding agrees with other western examples in being decidedly darker above and in having the white of the tail-feathers more restricted than eastern birds of this species. The lores are also darker, while there is little if

6. *Polioptila plumbea* Baird.

Very common.

7. *Auriparus flaviceps* (Sund.).

Common.

8. *Campylorhynchus affinis* Xant.

Very common.

9. *Salpinctes obsoletus* (Say).

Not rare.

10. *Catherpes mexicanus conspersus* Ridgw.

Not rare.

11. *Troglodytes aëdon parkmanni* (Aud.).

*12. *Motacilla ocularis* Swinh.

Accidental. A single specimen shot January 9, 1882, during a cold gale from the north. It was found on a drift of sea-weed on the beach. (See vol. 4 of these Proceedings, page 414.)

*13. *Helminthophila celata* (Say).

A single specimen (No. 86272 U. S. Nat. Mus.), collected in January, appears to be referable to this form.—R. R.

any trace of the light superciliary streak. Should these differences prove constant, I propose the name *P. carulea obscura* for the western race.

An equal number of eastern and western adult males measure as follows:

EASTERN SPECIMENS.

Catal. No.	Locality.	Date.	Wing.	Tail.	Culmen.	Tarsus.	White on outer tail-feather.
82109.....	Wheatland, Ind.....	April 23.	2.20	2.20	.42	.70	1.20
82604.....	Mount Carmel, Ill.....	April.....	2.15	2.15	.40	.70	1.25
55485.....	Do.....	do.....	2.15	2.15	.42	.70	1.20
82599.....	Laurel, Md.....	May 2.....	2.10	2.20	.40	.68	1.25
82600.....	District of Columbia.....	April 22.....	2.10	2.05	.40	.70	1.20
81993.....	Milton, Fla.....	April 4.....	2.05	2.15	.40	.70	1.10
Average.....	.....	.....	2.12	2.15	.41	.70	1.20

WESTERN SPECIMENS.

80466.....	Calaveras County, California.....	April 5.....	2.00	2.15	.38	.68	1.05
80821.....	do.....	May 28.....	2.00	2.10	.40	.70	1.10
73884.....	do.....	April 5.....	2.05	2.20	.40	.67	1.15
52608.....	Fort Whipple, Ariz.....	May 19.....	2.00	2.15	.38	.70	.....
69395.....	Apache, Ariz.....	July 4.....	2.05	2.20	.40	.70	.....
87530.....	Sau José, Lower California.....	April 17.....	2.00	2.10	.40	.68	0.95
Average.....	.....	.....	2.02	2.15	.39	.69	1.06

14. *Helminthophila celata lutescens*, Ridgw.

Common.

15. *Dendrocæca æstiva* (Gm.).

Rare.

* 16. *Dendrocæca vieillotii bryanti*, Ridgw.

(See vol. 4, these proceedings, page 444.—R. R.)

Common in the shrubbery around the Bay of La Paz; also seen at Pichalique Bay and Espiritu Santo Island. It frequented almost exclusively the mangroves (*Rhizophora mangle*), and is probably resident.

17. *Dendrocæca auduboni* (Townsend).

Common.

18. *Siurus nævius notabilis* Grinnell. ?

Rarely seen.

[I am now inclined to believe that the type specimen of *S. nævius notabilis* was an unusually large one, especially as regards the bill, since I have not yet met with any other western example of the species which agrees with it in dimensions. The two examples obtained by Mr. Belding are decidedly smaller, but both are females. I give below their measurements, as well as those of the type of *S. notabilis* and two other examples, which I refer provisionally to the same form. The type specimen of *notabilis* is so very different in proportions from any of the many eastern specimens of *S. nævius* which I have examined, that I am not yet prepared to yield its claim to recognition as the representative of a geographical or local race of the species; but whether other western specimens belong to the same form or not, is a question which can only be determined by more abundant material.

	Wing.	Tail.	Culmen.	Bill from nostril.	Tarsus.	Middle toe.	Remarks.
a. Type of <i>S. notabilis</i> (sex not determined.)	3.25	2.50	.....	.50	.83	.56	Beneath yellowish white.
b. 329, coll. F. Stephens, Tucson, Ariz. ♂*	3.29	2.25	.52	.40	.85	.60	Do.
c. —, coll. G. H. Ragsdale, Gainesville, Tex. ♂	3.20	2.45	.....	.42	.90	.55	Beneath white, faintly-tinged, and pale, buffy yellow.
d. 86268, U. S. Nat. Mus., La Paz, Lower California. ♀	3.15	2.40	.52	.40	.88	.52	Beneath decidedly sulphur yellow.
e. 86269, U. S. Nat. Mus., La Paz, Lower California. ♀	3.05	2.30	.55	.40	.90	.55	Beneath white, scarcely tinged with yellowish.

* Mr. Brewster's measurements of this specimen (cf. Bull. Nutt. Orn. Club, July, 1882, p. 133) are so different that our methods of measurement must vary. The dimensions by Mr. Brewster are as follows: Wing, 3.10; tail, 2.32; culmen, .64 (!); tarsus, .85.

19. *Geothlypis macgillivrayi* (Aud.).

Rare, on mountain cañons.

20. *Geothlypis trichas* (L.).

Common.

21. *Icteria virens longicauda* (Lawr.).

Rare.

22. *Vireo pusillus*. Coues.

Rare.

23. *Lanius ludovicianus excubitorides* (Sw.).

Common.

24. *Ampelis cedrorum* (Vieill.).

Very rare; like *Phainopepla nitens*, it feeds upon the berries of the mistletoe.

*25. *Tachycineta bicolor* (Vieill.).

Often seen in winter.

26. *Tachycineta thalassina* (Sw.).

Often seen in winter.

27. *Carpodacus frontalis rhodocolpus* (Cab.).

Abundant.

[The fine series collected by Mr. Belding shows the character of this well-marked race as given in Hist. N. Am. Birds (vol. i, pp. 460, 468) with wonderful uniformity. In five adult males the forehead, superciliary stripe, cheeks, throat, breast, upper part of abdomen and sides, and in some even the belly and flanks, also, are clear, soft, rose-red; the rump similar, but brighter—more of a carmine shade; the crissum in all strongly tinged or washed with rose-pink; the crown, occiput, nape, and whole back overlaid or very strongly tinged with deep wine-red.—R. R.]

28. *Astragalinus psaltria* (Say).

Common.

*28. *Chrysomitris pinus* (Wils.).

Only one observed; this in a flock of *A. psaltria*, with which, in California, the species frequently associates.

29. *Passerculus rostratus* (Cass.).

[The series of 10 specimens obtained by Mr. Belding I find puzzling in the extreme. The majority of them agree exactly with typical specimens from San Diego and other parts of Southern California, while others differ in darker colors, thus forming an approach to *P. guttatus*, the unique type of which came from San José del Cabo. In fact, one specimen (No. 86292, ♀, Feb. 25) agrees exactly with the latter in coloration, and I had unhesitatingly referred it to the same species or race; but I now find, after a very close examination of a large amount of material, that it either cannot be *guttatus* or else the latter is nothing but an abnormally small, slender-billed individual of *rostratus*, thus destroying the validity of *guttatus* altogether. Great as is the variation

in size and form of the bill in *rostratus*, I am unable to find among 27 examples of the latter a single one having the bill nearly so slender as in the type of *guttatus*, as the following measurements of the latter compared with the minimum corresponding measurements of *rostratus* will show :]

	Wing.	Tail.	Tarsus.	Middle toe.	Culmen.	Bill from nostril.	Depth of bill at base.
Type of <i>P. guttatus</i>	2.55	1.95	.82	.62	.45	.32	.22
Minimum measurements of <i>P. rostratus</i>	2.55	1.90	.80	.60	.45	.36	.27
Maximum measurements of <i>P. rostratus</i>	2.95	2.30	.92	.68	.51	.40	.29

From the above figures it is evident that the difference between specimens of *P. rostratus* is greater than between smaller individuals of the same and the so-called *P. guttatus*, *except in the thickness of the bill*. In fact, all other measurements intergrade, as does also, unquestionably, the coloration. It therefore follows that if *P. guttatus* is allowed to rank as a species, or even subspecies, its claim to such rank rests solely upon the peculiarly slender bill.

Two specimens collected on the island of San Benito, Pacific coast of Lower California, by Dr. T. H. Streets, U. S. N. (Nos. 70636 and 70637, U. S. Nat. Mus.), are labeled in the handwriting of Dr. S. "*Passerculus sanctorum* Cones (Type)," and are quite appreciably different in coloration, and also in the form of the bill, from ordinary *P. rostratus*, including an example (No. 70635) obtained by Dr. Streets at Todos Santos. The coloration of these two specimens being essentially identical with that of the type of *P. guttatus* I had referred them to that supposed species; but I now find that so far as measurements go, they belong rather to *P. rostratus*. Certain it is, that among Mr. Belding's La Paz specimens are some which I cannot in any way distinguish from these San Benito specimens, while others of the same series lead the way by the most gradual but complete transition to "typical" *rostratus*. In order to make the matter more plain, I have divided the collection before me into three series, as follows: (a) Specimens typical of *rostratus* as to coloration; (b) types of "*P. sanctorum* Cones;" (c) specimens agreeing with "*P. sanctorum*" in coloration; (d) specimens agreeing with the type of "*P. guttatus*" in coloration, and (e) the type of "*P. guttatus*" itself.

a. Typical *P. rostratus*.

Catalogue number.	Sex and age.	Locality.	Date.	Wing.	Tail.	Culmen.	Bill from nostril.	Depth of bill at base.	Tarsus.	Middle toe.
82464	♂ ad	San Pedro, Cal.	November ..	2.60	2.00	.50	.38	.28	.90	.60
34896	♂ ad	San Diego, Cal.	do	2.80	2.25	.50	.40	.28	.85	.60
6339	♂ ad	do	do	2.65	2.10	.50	.40	.28	.85	.60
6440	♂ ad	do	do	2.95	2.25	.51	.40	.29	.90	.65
59189	♂ ad	Month Colorado River	October ..	2.90	2.30	.50	.40	.28	.95	.65
59191	♂ ad	do	do	2.75	2.15	.49	.38	.28	.85	.65
		Average		2.77	2.17	.51	.39	.28	.88	.62
16969	♂ ad	Cape Saint Lucas	September ..	2.70	2.20	.50	.40	.28	.85	.62
26605	♂ ad	do	do	2.60	2.00	.48	.38	.27	.88	.60
26611	♂ ad	do	do	2.65	2.15	.48	.38	.28	.85	.65
26664	♂ ad	do	November ..	2.80	2.25	.50	.40	.29	.90	.65
16940	♂ ad	do	September ..	2.70	2.00	.50	.40	.28	.90	.62
26614	♂ ad	do	do	2.60	2.00	.50	.40	.28	.82	.60
26698	♂ ad	do	do	2.70	2.00	.50	.38	.27	.85	.60
32508	♂ ad	do	do	2.55	1.90	.50	.38	.28	.80	.60
		Average		2.66	2.07	.49	.39	.28	.86	.62
86294	♂ ad	La Paz, Lower California	January ..	2.95	2.20	.50	.40	.29	.92	.68
86297	♂ ad	do	December ..	2.70	2.00	.48	.38	.28	.85	.65
83295	♂ ad	do	January ..	2.75	2.15	.50	.40	.28	.90	.65
86299	♂ ad	do	February ..	2.60	1.90	.45	.36	.26	.85	.60
86301	♂ ad	do	January ..	2.55	1.95	.49	.40	.27	.85	.67
86293	♂ ad	do	January ..	2.70	2.10	.50	.40	.28	.85	.60
		Average		2.71	2.05	.49	.39	.28	.87	.64
		Mean average		2.71	2.10	.50	.39	.28	.87	.63

b. Types of *P. sanctorum* COUES.

70636	♂ ad	San Benito Island, Lower California		2.75	2.25	.50	.40	.28	.85	.65
70637	♂ ad	do		2.80	2.10	.50	.49	.27	.90	.62
		Average		2.77	2.17	.50	.40	.27	.87	.63

c. Specimens resembling "*P. sanctorum*" in coloration.

86300	♂ ad	La Paz, Lower California	February ..	2.75	2.25	.50	.40	.....	.80	.68
86298	♂ ad	do	January ..	2.70	1.95	.50	.40	.28	.85	.62
86296	♂ ad	do	February ..	2.60	2.05	.50	.40	.28	.88	.68
		Average		2.68	2.08	.50	.40	.28	.84	.66

d. Specimens resembling *P. guttatus* in coloration.

86292	♂ ad	La Paz, Lower California	February ..	2.70	2.10	.48	.38	.28	.90	.65
70635	♂ ad	Todos Santos Island, Lower California		2.80	2.30	.52	.40	.29	.90	.65

e. Type of *P. guttatus*.

26615	♂ ad	San José, Lower California	December ..	2.55	1.95	.45	.32	.22	.82	.62
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* 30. *Coturniculus passerinus perpallidus* Ridgw.

Rare, but seen at several localities.

31. *Chondestes grammica strigata* (Sw.).

Common.

32. *Zonotrichia leucophrys* (Forst.).

Common at and south of La Paz, on May 1, during and after very hot weather. This species, *Spizella breweri*, and *Pipilo chlorurus* were missed from San José, and not afterward seen. This is the only *Zonotrichia* yet detected at and south of La Paz*, and the only one found by me in central California in summer south of 39°. It breeds regularly in the mountain meadows of Calaveras and Alpine Counties†, at an altitude of 7,000 feet or more, where I have seen it unmated as late as July 9. I have not yet found it below 7,000 feet.

33. *Spizella pallida* (Sw.).

Common; found also at San José.

34. *Spizella breweri* Cass.

Abundant.

35. *Amphispiza bilineata* (Cass.).

Common.

36. *Pipilo chlorurus* (Townsend.).

Common.

37. *Pipilo fuscus albigula* (Baird).

Not often seen at any locality.

[The specimens obtained by Mr. Belding are in fine winter plumage, and all exhibit distinctly the characteristic features of the race, as distinguished from *P. mesoleucus*, in much more distinctly ashy breast, decidedly more trenchant definition of the buffy throat-patch, smaller size, etc. As in *P. mesoleucus*, however, the throat is occasionally entirely unicolored, three of the seven examples showing no difference in intensity of the buff on different parts of the throat; therefore, the phrase "ochraceous of throat palest posteriorly, where it becomes nearly white," as given in the diagnosis of the race on p. 122, vol. ii, *Hist. N. Am. B.*, requires some modification, to this extent, that *when it does vary in intensity*, it is palest posteriorly, instead of the reverse, as in *P. mesoleucus*.—R. R.]

* In the Xantus collection, from "Cape Saint Lucas," are a few examples of *Z. intermedia*, but most of the specimens obtained by Xantus are *Z. leucophrys*.

† *Z. leucophrys* is undoubtedly the species found by me breeding abundantly at Mountain Meadows, summit of Donner Lake Pass, in the Sierra Nevada, in July, 1867. In my report on the ornithology of the fortieth parallel (p. 471), the birds of this locality were erroneously referred to *Z. intermedia*, for the reason that no specimens were obtained, while at that time *Z. leucophrys* was not supposed to occur west of the Rocky Mountains.—R. R.

38. *Cardinalis virginianus igneus* (Baird).

Common.

[A fine series, including nine males and three females of this excellent race.—R. R.]

39. *Pyrrhuloxia sinuata* Bp.

Rather rare, less so in the interior.

[The five adult males from Lower California differ from an equal number of Texan examples in having the red of an appreciably lighter, less rosy, tint, and that around the fore part of the head very much clearer. An example from Camp Grant, Ariz., agrees with the peninsular specimens in this respect. It is possible that a larger series will show these differences to be constant. In specimens obtained in April the bill is now, after the lapse of three months' time, still deep orange-colored, while in winter specimens the bill is horn-colored, the mandible paler, but scarcely inclining to yellowish.—R. R.]

40. *Zamelodia melanocephala* (Sw.).

Not common.

* 41. *Passerina amcena* (Say.).

Not common.

42. *Calamospiza bicolor* (Townsend).

Abundant.

43. *Icterus parisorum* Bp.

Rare in winter.

44. *Icterus cucullatus* Sw.

Common.

45. *Corvus corax carnivorus* Bartr.

Common.

46. *Aphelocoma californica* (Vig.).

Common.

[Specimens from Lower California appear to be quite identical with those from the coast region of California proper. If any different, they are purer white beneath, the crissum having absolutely no tinge whatever of blue.—R. R.]

47. *Tyrannus vociferans* Sw.

Common.

48. *Myiarchus cinerascens* Lawr.

Common.

49. *Sayornis sayi* (Bp.).

Rare.

50. *Sayornis nigricans* (Sw.).

Rare.

51. *Empidonax difficilis* Baird.

Rare.

52. *Empidonax obscurus* (Sw.).

Very common in winter—more rare in summer.

53. *Pyrocephalus rubineus mexicanus* (Sci.).

One specimen only.

54. *Calypte costæ* (Bourc.).

Abundant in winter; not common at San José, Cape Saint Lucas, or Miraflores in April and May.

[Two nests of this species, collected at La Paz, by Mr. Belding, are quite different in size and shape. Both are ordinary looking structures, composed of dull gray lichens and small pieces of thin bark, held together with spiders' webs, the interior containing a few soft small feathers, in one nest, apparently of the summer yellow bird (*Dendæca aestiva*). The larger nest measures about $1\frac{1}{2}$ inches in diameter by a little more than 1 inch in depth, the cavity being about $.1 \times .80$; the smaller one measures about the same in diameter across the top, but is much narrower at the bottom, is less than 1 inch high, and has a shallower cavity with much thinner walls. Each contains a single egg, one of which measures $.30 \times .50$, the other $.32 \times .50$. The identification is positive, the parent bird accompanying each nest. One of these females has a very large spot or patch of metallic violet on the throat, while the other has instead only a few dusky specks.—R. R.]

55. *Basilinna xantusi* (Lawr.).

In winter, found only in mountain cañons. It was common at the western base of Cacachiles mountain in February, more so, in fact, than *C. costæ*. It was not observed at San José until some time after my arrival, though it occurred in cañons only two or three miles to the westward. About the last of April it was common in orchards at San José.

While incubating, this species is very confiding and courageous, sometimes remaining upon the nest until removed from it by the hand. A nest taken April 23 was placed underneath an awning or shade of boughs and weeds in front of a farmhouse. It was surrounded by downy heads of composite plants and could scarcely be distinguished from them, having, as usual, been made of raw cotton.

[The two nests of this species obtained by Mr. Belding are very neat structures, quite different in appearance from the nest of any other North American Hummer, though they differ much from one another. The finer of the two (No. 18563, San José, April 23) is a compactly felted mass composed chiefly of raw cotton, but this coated exteriorly

with spiders' webs and light brown fine fibrous materials. It is securely fastened to two forks of a twig, and rests between them. The shape is very irregular, owing to the manner in which it is secured to the twigs, but on top the transverse diameter is about 1.50 inches, the cavity being about 1 inch across and about .60 of an inch deep. The two eggs measure respectively .32 x .50 and .34 x .49, being essentially identical in size and shape with those of *Calypte costae*, from which it is apparently quite impossible to distinguish them. The other nest (No. 18564, Arroyo, north of Santiago Peak, May 9) is quite different both in shape and material. It is very regularly but shallowly cup-shaped, averaging a little over 1.50 inches in external diameter, but only about .80 of an inch in extreme height. The cavity is about 1 inch across by a little over .50 of an inch in depth. The material is chiefly raw cotton, but this much mixed, especially outwardly, with fine leaf-stems, seed-capsules, spiders' webs, etc., besides one or two small soft white feathers. Like the other nest, this one is supported between two twigs. The eggs measure respectively .34 x .49 and .32 x .50.—R. R.]

56. *Chordeiles acutipennis texensis* (Lawr.).

Rarely seen at La Paz, but abundant at San José after April 23. Common at San Diego in May, 1881.

57. *Picus scalaris lucasanus* (Xantus).

Very common.

58. *Centurus uropygialis* Baird.

Abundant.

59. *Colaptes chrysoides* Malh.

Very common.

60. *Ceryle alcyon* (L.).

Common.

61. *Geococcyx californianus* (Less.).

Common.

62. *Bubo virginianus subarcticus* (Hoy).

Rarely seen.

*63. *Speotyto cunicularia hypogæa* (Bp.).

Rare.

64. *Tinnunculus sparverius* (L.).

Common.

65. *Polyborus cheriway* (Jacq.).

Abundant.

66. *Pandion haliaëtus carolinensis* (Gm.).

Common.

67. *Circus hudsonius* (L.).

Common.

68. *Accipiter fuscus* (Gm.).

Rare.

69. *Parabuteo unicinctus harrisi* (Aud.).

Common. Frequently met with in May along the route from San José to Miraflores.

70. *Buteo borealis calurus* Cass.

Common.

[The single specimen collected by Mr. Belding cannot by any means be referred to the so-called var. *lucasanus*, the tail being marked not only by a very distinct subterminal narrow black band, but with more or less distinct narrow bars entirely to the base. The under plumage is very light colored, the usual abdominal belt of dusky markings being indicated only by very small hastate streaks; the tibiæ are creamy white, barred with light rufous, and the sides more distinctly barred with dark brown and rufous. It is somewhat doubtful whether the principal character assigned to "*lucasanus*" (the uniform rufous tail without subterminal black bar) will prove constant, even in birds from the cape.—R. R.]

*71. *Buteo abbreviatus* Caban.

Very rare.

*72. *Cathartes aura* (L.).

Abundant.

73. *Zenaidura carolinensis* (L.).

Very abundant in winter; rare at other localities in April and May.

74. *Melopelia leucoptera* (L.).

Abundant.

75. *Chamæpelia passerina pallescens* Baird.

Abundant.

76. *Lophortyx californica* (Shaw).

Common.

77. *Herodias egretta* (Gm.).78. *Dichromanassa rufa* (Bodd.).Common; *white plumage not seen.**79. *Hydranassa tricolor ludoviciana* (Wils.).

Less common than the preceding.

*80. *Butorides virescens* (L.).81. *Nycticorax griseus naevius* (Bodd.).*82. *Nyctherodius violaceus* (L.).

83. *Tantalus loculator* (L.).
- *84. *Eudocimus albus* (L.).
85. *Plegadis guarauna* (L.).
- *86. *Squatarola helvetica* (L.).
- *87. *Ægialites alexandrinus nivosus* Cass.
- *88. *Ochthodromus wilsonius* (Ord.).
Very common.
- *89. *Ereunetes pusillus occidentalis* (Lawr.).
- *90. *Limosa lapponica novæ-zealandiæ* Gray.
91. *Tringoides macularius* (L.).
92. *Numenius longirostris* Wils.
93. *Numenius hudsonicus* Lath.
94. *Phalaropus fulicarius* (L.)
- *95. *Rallus beldingi* Ridgw.
Rare. (See vol. 5, p. 345.)
96. *Fulica americana* Gm.
97. *Tachypetes aquila* (L.).
Abundant.
98. *Pelecanus fuscus* Linn.
Very abundant until nearly exterminated by disease in February. The stomachs of several examined were full of small worms. A great many died at Cape St. Lucas and San José. I was informed that this mortality occurs every winter. I copy the following from my notes: "February 24. ♂ *P. fuscus*. Back of neck dark brown,* bare skin around eye, brown; base and much of pouch deep red; specimen in breeding plumage, and condition."
- *99. *Phalacrocorax dilophus cincinnatus* (Brandt).
100. *Phalacrocorax penicillatus* (Brandt).
- *101. *Phaëthon æthereus* Linn.
Only three individuals seen; one of them several hours' sail from Mazatlan; one obtained at Esperitu, Santo Islands, February 1.
102. *Larus occidentalis* Aud.
- *103. *Larus delawarensis* Ord.
104. *Larus heermanni* Cass.
- *105. *Larus philadelphiae* (Ord.).
106. *Thalasseus regius* Gamb.

* In the single specimen sent the back of the neck is a rich brownish black, quite different from the seal-brown or chestnut of all eastern specimens I have seen. Audubon describes the color of the naked orbits as pink, the naked skin about base of the bill as deep blue, and the pouch greenish black. Thus it would seem that the soft parts are very differently colored. Should this difference prove constant, the western bird would have to be separated as a race.—R. R.

*107. *Sterna forsteri* Nutt.

*108. *Dytes nigricollis californicus* (Heerm.).

*109. *Podilymbus podiceps* (L.).

Additional species found at San José del Cabo from April 1 to May 17.

*1. *Telmatodytes palustris paludicola* Baird.

Rare.

2. *Anthus ludovicianus* (Gm.).

A flock remained until about May 3, or later.

*3. *Geothlypis beldingi* Ridgw.

(See vol v., p. 344.)

Common in the few suitable localities around San José, Miraflores, and cañons of the Miraflores and Santiago Peaks. At Agua Caliente a pair were noticed feeding their young just out of the nest May 7. The only note traced to this species was a loud *chip*. I listened long, when in the neighborhood of one or more of these birds, for the familiar song of the Maryland Yellow-throat (*G. trichas*), but failed to hear it. Their habits are quite like those of *G. trichas*, and the eggs are not materially different, if a nest found by my guide on the Miraflores and Todos Santos trail May 6 belonged to this species, as I supposed it did, having seen a fine male near the spot from which it was taken.

4. *Lanivireo solitarius cassini* (Xantus).

Found breeding; common at Miraflores.

5. *Guiraca cærulea* (L.).

Only two specimens seen.

6. *Passerina versicolor* (Bp.).

Rare.

7. *Molothrus ater obscurus* (Gm.).

Common in the streets and on buildings, associated with *Scolecophagus cyanocephalus*.

8. *Xanthocephalus icterocephalus* (Bp.).

Rare: not seen in May.

*9. *Scolecophagus cyanocephalus* (Wagl.).

Common, breeding.

*10. *Crotophaga sulcirostris* Sw.

Only four individuals seen. A nest found April 29 contained eight eggs. It was fastened to upright reeds, and was composed of coarse weed stalks and mesquit twigs, lined with green leaves.*

* I was informed several years since, by Sr. Don José C. Zeledon, of San José, Costa Rica, that he has found nests of this species in Costa Rica, which were lined with green leaves of the lemon tree. It would be an interesting fact should this prove to be a regular habit of the species.—R. R.

The female, while incubating, was very wary, slipping quietly away from the nest and returning to it very stealthily, below the tops of the reeds.

The 1st of April I discovered four of these birds in a marsh, in which was a rank growth of *tule*, flags, and reeds. Having shot one of them, and the others were not molested, they remained in the marsh until May 15, or later. This marsh, the only one seen during the winter, harbored several species not elsewhere noticed, among them *Porzana carolina*. On one side of the marsh a lagoon or pond of fresh water, of 10 or 15 acres extent, was the resort of numerous gulls, ducks, and waders.

April 29 I noticed, for the first time during this visit to Lower California, *Progne subis*, *Petrochelidon lunifrons*, and *Cypselus saxatilis* circling over the lagoon. It is a question whether these birds came from the mountains of the peninsula or from the mainland.

May 1, while on the beach, a very large, compact flock of *Numenius hudsonicus* was, with the aid of a field-glass, discovered in the distance, rapidly approaching from the south. After sweeping in large circles over the lagoon, thus enabling me to shoot several of them, they alighted. They appeared to be weary as well as strange birds. The following morning, as I could not find the flock, my impression was it had resumed the journey northward.

That the birds of Lower California breed regularly in spring I have no doubt. The first nests observed were *Pandion haliaëtus carolinensis*, Espiritu Santo Island, February 1; *Auriparus flaviceps*, La Paz, February 27 (nest in this case unfinished); *Calypte costae*, La Paz, March 2, (bird setting).

With the single exception of a juvenile or dwarfed *Lophortyx californica*, shot January 25, at Pichalique Bay, and which was apparently but six or eight weeks old, no young birds were seen until April 14, when a brood of *Polioptila plumbea* just out of the nest were observed.

May 17, the last day of my stay at San José, I saw the following species, besides well-known residents:

1. *Progne subis* (L.).
Common.
2. *Molothrus ater obscurus* (Gm.).
Rarely seen in May.
3. *Scolécophagus cyanocephalus* (Wagl.).
Rarely seen in May.
4. *Cypselus saxatilis* Woodh.
Rare; no specimen taken here.
5. *Polyborus cheriway* (Jacq.).
Abundant.
6. *Pandion haliaëtus carolinensis* (Gm.).
Common.

7. *Parabuteo unicinctus harrisi* (Aud.).
Common.
8. *Cathartes aura* (L.).
Abundant.
9. *Ardea herodias* L.
Rare.
10. *Herodias egretta* (Gm.).
Several seen.
11. *Garzetta candidissima* (Gm.).
Several seen.
12. *Dichromanassa rufa* (Bodd.).
Rare.
13. *Hydranassa tricolor ludoviciana* (Wils.).
Rare.
14. *Nyctherodias violaceus* (L.).
Very common.
15. *Tantalus loculator* L.
A pair seen in April and May.
16. *Plegadis guarauna* (L.).
A flock present in April and May.
17. *Tringoides macularius* (L.).
Rare.
18. *Mareca americana* (Gm.).
A flock of about a dozen.
19. *Spatula clypeata* (L.).
Mated.
20. *Querquedula discors* (L.).
Mated; common.
21. *Querquedula cyanoptera* (Viëill.).
Mated; rare.
22. *Tachypetes aquila* (L.).
Common.
23. *Pelecanus fuscus* L.
Common.
24. *Phalacrocorax pencillatus* (Brandt).
Abundant.
P. cincinnatus was very common at La Paz in the winter months;
rare in March.

*25. *Larus californicus* Lawr.

Moderately common.

26. *Larus occidentalis* Aud.

Moderately common.

27. *Thalasseus regius* Gamb.

Common.

Most of these twenty-seven species were breeding.

The following additional species were found at the village of Miraflores, which lies two or three miles east of a peak of the same name. It is on a branch of the San José River and is about twenty-five miles north of the town of San José. The trail leading to it follows the gradually ascending sandy bed of the river. The altitude of the village is about 700 feet.

It was probably here that Xantus obtained his specimens marked "Miraflores" instead of getting them from the high and quite inaccessible, sharp, rocky peak of the same name, which has an altitude of more than 6,000 feet.

There is some very fertile bottom land here and numerous fine, large evergreen oaks grow on the uncultivated portion of it.

In these oaks were found, with other species—

1. *Virosylva gilva swainsoni* Bd.

Moderately common May 9.

*2. *Dendroeca townsendi* (Nutt.).

An individual, male, seen April 4.

*3. *Pipilo maculatus megalonyx* Baird.

Rare in April and May.

4. *Melanerpes formicivorus angustifrons* Baird.

Common, burrowing in oaks, whereas all the other Woodpeckers of Lower California, including *Colaptes chrysoides*, as far as I have observed, burrow in the Giant Cactus (*Cereus giganteus*).

*5. *Micrathene whitneyi* (Coop.).

Common, if not abundant.

Whitney's Pigmy Owl utters monotonous calls or whistlings, faint, tremulous notes, and when perched within a few feet of an intruder expresses its anxiety by complaining cries.

As an attempt to describe the notes of three other obscurely known owls may not be out of place here, I transcribe the following from my journal:

"Big Trees, August 16, 1880. Bright moonlight.

"*Scops flammeolus* has a firm single note, which is often repeated after short intervals; shot specimen while calling."

Same locality, June 30, 1882:

"*Scops flammeolus* utters frequently a single quite unvarying rounded note.

"Murphy's, October 2, 1880. This morning shot *Glaucidium gnoma*, which I heard calling, and at first supposed it was the Yellow-billed Cuckoo (*Coccyzus americanus*). The specimen shot was perched on the dead limb of a pine tree about 50 feet from the ground. Its calls varied but little in the fifteen or twenty times I heard them. They may be nearly represented thus: 'Coo-coo-coo-coo-coo-coo—cow—cow.' The first six or seven guttural notes were equidistant, and uttered at the rate of about two in a second; then, after a pause of about two seconds, the longer notes followed. It was occasionally answered in similar notes by an unseen bird.

"Big Trees, July 13, 1881. *Strix occidentalis*.—Listened to its call about sunset; the bird in sight. Its call resembles the barking of a dog, the first three or four notes lasting about one second each; these succeeded by long, harsh, whining notes."

ON THE GENUS TANTALUS, LINN., AND ITS ALLIES.

BY ROBERT RIDGWAY.

The only species of *Tantalus* given by Linnaeus in the tenth edition of "Systema Naturæ" is *T. loculator*, which may, therefore, be properly regarded as the type of the genus. In the twelfth edition *T. ibis* also appears, along with several true Ibis of the genera *Eudocimus*, Wagl., and *Plegadis*, Kaup. So far as I am able to ascertain, the *T. ibis* and other Old World species related to it have never been separated generically from *T. loculator*; but a recent careful comparison* has convinced me that they all belong to quite a distinct genus from *T. loculator*. No generic name having, to my knowledge, been yet given specially to the Old World species, I propose for this group the term *Pseudotantalus*. The main differential characters of the two genera may be expressed as follows:

TANTALUS.—Adult with the whole head and upper half of neck naked, the skin hard and scurfy; crown covered by a quadrate, or somewhat shield-shaped, smooth horny plate, and skin of nape transversely wrinkled or corrugated. Nostrils subbasal; tertials longer than primaries, and with compact or normal webs. (Type, *T. loculator* Linn.)

PSEUDOTANTALUS.—Adult with only the fore part of the head naked, the hinder half and entire neck densely feathered; nostrils strictly basal; tertials shorter than primaries, and with their webs somewhat

*Although I have been able to actually examine only *T. ibis*, the excellent plates and descriptions of the remaining species which have been consulted leave no doubt that all the Old World Wood Ibises are strictly congeneric.