

ON *TURDUS ALPESTRIS* AND *TURDUS TORQUATUS*, TWO DISTINCT SPECIES OF EUROPEAN THRUSHES.

By LEONHARD STEJNEGER.

On plate 15, vol. ii, of Dresser's "Birds of Europe" is figured a young female Ring-Thrush of which the author, in the text (vol. ii, p. 114; published in 1872) speaks in the following terms: "We have received from Herr W. Schlüter, of Halle, a naturalist to whose ready assistance we owe the opportunities of describing many a rare bird, a young female of the Ring-Ouzel, evidently in its first winter plumage, of which we add a full description, *as we cannot find any notice of this curious livery in any work we have examined.*" Then follows the description, of which we only quote the following as indicating the chief peculiarities of the bird: ". . . . quills brown, externally margined with buffy white, which causes a shade of this color to pervade the whole of the outer surface of the wing; under surface of the body chocolate-brown, the whole of the feathers so broadly margined with whitish that the ground-color of the plumage is scarcely perceptible; under wing-coverts creamy white, with a narrow longitudinal indication of brown on some of the feathers. . . ." The plate bears out the characters very well, although we note no "chocolate-brown" color; but inasmuch as we have a specimen before us which nearly exactly matches the plate, we think the latter is more correct, the dark markings on the under surface in our specimen being sepia brown.

"This curious livery" is not mentioned in any of the usual standard works on European ornithology. It is not described by Temminck, Nilsson, Naumann,* Degland, Yarrell and Newton, Macgillivray, &c. Neither have authors writing later than the publication of Dresser's grand work given it even a passing notice. Mr. H. Seebold, who, in 1881, monographed the Thrushes (Cat. B. Brit. Mus., V), and who, in 1883, treated of the Ring-Thrush in his "History of British Birds," has also passed by it in absolute silence.

Nevertheless, as I shall show later on, the "livery" in question has been mentioned repeatedly in the literature, not as a special plumage of the Ring-Thrush, but as a separate species. If some of the authors quoted above had consulted the references cited by themselves in their synonymies, they would have found it described by C. L. Brehm as *Merula alpestris*.

It has been the unfortunate fashion to sneer at the species and sub-

* In the 6th vol. of his great work, pp. 5-14, he gives some additional notes on the Ring-Ouzel, in which he alludes to this "livery" as that of the younger bird. His notes are chiefly based on material furnished him by Gloger, and the specimens referred to are evidently the same later on mentioned by Brehm as belonging to *T. alpestris*.

species of Brehm, and the simple fact that a name was established by him has been sufficient reason to ignore it altogether, and to put it into the synonymy without further investigation. This is not only injustice to Brehm's honest labor and his extreme power of discrimination, but it has resulted in absolute injury to science. In the present case, for instance, I think that I am in position to prove that Brehm was correct, and that there exist two distinct species of Ring-Thrushes in Europe, notwithstanding the fact that hardly a single European ornithologist of the present generation even dreams of it.

That *Turdus alpestris* is no special plumage, referable to sex, age, or season, is clear from the material at hand. There is first the specimen described and figured by Dresser. I have before me a beautiful specimen, nearly an exact counterpart of Dresser's plate, also obtained through W. Schlüter, and said to have come from Galicia. The label indicates that it is a young male, and there is nothing in the appearance of the bird to contradict this statement. The bird is evidently in its first winter plumage; the bill is entirely dusky; the collar is brownish and a little more distinct than in the bird figured by Dresser. This is U. S. Nat. Mus. No. 56308. But there are two more specimens in the same museum (Nos. 9664 and 106458), which are certainly *old birds in full summer plumage*. One was collected June 7, the other August 8; the former, an adult female, according to the label, browner; the latter, indicated as a male, blacker. Both have *yellow bills*, pure white collars, and the margins of the breast and abdominal feathers extremely broad, notwithstanding the season and the worn condition of the plumage; both have the central white spot to each feather, the whitish aspects of the upper surface of the wing, and the white under wing-coverts. In other words, they are true and typical adult *Turdus alpestris* in summer plumage. We have, consequently, a pair of young birds in the first winter, and a pair of adult ones in summer. This proves beyond question that we have not to do with a sexual or seasonal plumage of *Turdus torquatus* proper.

We will next have to prove that Brehm's *Merula alpestris* belongs here. He has described the bird three times, but inasmuch as his descriptions have been entirely overlooked, one of them, and that the most important and elaborate one, being, besides, rather inaccessible to most ornithologists, I take the liberty to present them in translation.

The name occurs for the first time in Isis, 1828, p. 1281, but without description, which was not supplied until 1831, when we find it in Brehm's Handbuch, p. 377. I need only quote the following to show that this is the bird meant:

The breast and abdomen have a very variegated appearance, for each feather has, besides the light margin, a large white median spot interrupted by a blackish shaft stripe, the black consequently being forced towards the white margin. * * * This species inhabits the Alps of Tyrol. * * *

In the Isis for 1848, Brehm published some observations by the late Count von Gourey Droitaumont on the song of several German birds,

accompanied by remarks by himself. Brehm's remarks accompanying the observation on the Ring-Ouzel's loud and penetrating song contains a parallel comparison of the two species (pp. 91-93), as follows:

THE NORTHERN RING-OUZEL.

Merula torquata auct.

THE ALPINE RING OUZEL.

Merula alpestris Pr.

(Male in spring.)

Bill yellow, with a more or less intensive dusky tinge.

The entire bird, except the somewhat lighter-colored wings, black with a white semi-collar on the lower neck.

In autumn the male of this species also has white margins to the feathers; but they are narrow and disappear entirely in the spring. It has never white spots in the middle of the feathers.

The female is more spotted than the male on account of the light margins being broader, although even in the autumn much less so than *Merula alpestris*, and assumes in summer, when these margins partly or entirely disappear, a brownish appearance, which is brought out in contrast with the grayish-white collar.

The young plumage is unknown to me.

It inhabits Northern Europe, migrating through Germany along the mountain chains. It is the only species occurring in Northern and Middle Germany. I can assert this with the greatest certainty, since all the specimens which I have obtained from Northern Germany, from the present region [Rentendorf], from the mountains of the Voigtland, and from the Thuringian Forest belong to the present species. This is the bird which Bechstein possessed, for he could get no other in Thuringia, as no other occurs there. It has the song described by him, the father of German ornithology, and not at all the loud whistle of its near relative.

The upper surface black, rather pale or dull; under surface very spotted and variegated, all feathers below the white collar having white margins which never disappear and most of them possessing white spots in the middle of the feathers, which are most prominent in summer, and which are never seen in *Merula torquata*.

In autumn the appearance of the male is very variegated, because the margins to the feathers are very broad, and the same is the case with the female. She also presents a very variegated aspect on account of the whitish margins and medial speculum to the feathers, and in autumn, especially in the first year, the margins are so broad grayish white that the bird shows more white than dusky. In the young plumage the bird is hardly recognizable. The entire upper surface is blackish brown, in the female more grayish black, with whitish yellow shaft streaks and light margins to the feathers, broadest on the wings, which thereby appear quite light; the whole under surface is spotted transversely yellowish white and black, the male often with nearly entirely white throat.

It inhabits the southern Alps, especially those of Tyrol and Kaernten, and goes as far as the Riesengebirge. Those which Gloger collected there, and all which I have obtained through my friends from Salzburg, Tyrol, Kaernten, and Vienna, belong to this species. This is the bird which my collaborator [Count von Gourey Droitaumont] had in his possession, and the only one which he could have had, for the northern species is not represented among the 18 specimens which I have received from the countries just mentioned. This is the bird that has the loud, penetrating song, which has been described above.

Finally, in *Journal für Ornithologie*, 1860, Brehm appended some remarks to a paper by Leon Olphe-Galliard on the birds of the Valley of Greyerz, Switzerland, which again emphasize the differences between the two species as follows (p. 239):

This Ring-Ouzel from Switzerland is remarkably like one of the subspecies from Kærnthén. All the Ring-Ouzels breeding in the Alps and in the Riesengebirge differ essentially from the northern ones. We possess 28 Ring-Ouzels from the most different localities, even from Norway and from Spain. These Ring-Ouzels from Central Europe differ essentially from the northern ones—

- (1) By the much lighter coloration of the wings;
- (2) By the broader light margins to the feathers of the lower surface; and
- (3) By the white spots (speculum) in the middle of the pectoral and abdominal feathers.

They have besides so loud a voice that their song is quite intolerable in a room, while that of the northern ones is soft and pleasant.

The above quotations prove beyond question the identity of our birds with Brehm's *T. alpestris*.

It will be seen that Brehm obtained not less than 18 specimens of *alpestris* out of a total number of 28,* a number which in itself goes a long way to prove the existence of the species.

Brehm asserted most positively that *T. torquatus* is northern in its distribution, *T. alpestris* southern, and states that he got the latter only from the southern localities enumerated by him (see above). Against this assertion other collectors are certain to record a somewhat different experience, inasmuch as unquestionable typical *T. torquatus* are found in the collections from various parts of Southern Europe. Thus we have here a winter specimen from France, and Dresser (l. c.) figures a typical male in winter plumage (September 26) from Belgrad, Servia. But, so far as I have been able to ascertain the dates, all the true *T. torquatus* from the south are winter birds on their migration. In order to find out the true habitat of each of these species, however, it is necessary to trace their distribution *during the breeding season*, and it will then probably be found that *T. alpestris* belongs exclusively to the high mountains from southern Central Europe southward, including the Riesengebirge, the Carpathians, the Alps with all their branches, the Pyrenees, and Sierra Nevada. The Caucasian Ring-Thrushes are hardly referable to this species, for Radde (*Ornis Caucasica*, p. 270) speaks of their breeding plumage as entirely wanting the white margins, and says that the old males killed at the end of March had the white margins much narrower than specimens from Hungary (presumably *T. alpestris*) collected in May. Unfortunately he says nothing of the breeding pair shot July 2, at an altitude of 10,000 feet above sea-level, except that the plumage was very much worn.

* When C. L. Brehm died his collection is said to have contained 19 specimens referable to *T. torquatus* and 9 to *T. alpestris* (cf. A. E. Brehm's "Verzeichniss der nachgelassenen Sammlung (meist) europäischer Vögel von Dr. Ch. L. Brehm", 1866, p. 5). It is a thousand pities that this valuable collection is still inaccessible to ornithologists.

It seems pretty safe to assume that *T. alpestris* does not occur, at least regularly, anywhere in Northern Europe; otherwise it should hardly escape attention. The specimen figured by Dresser, however, is said to have come from Schleswig. Whether there has been a transposition of label, or Schleswig misread for Schlessien, is difficult to say. Too great stress cannot be laid upon a dealer's label, though, of course, very little can be said against the supposition that the bird was a straggler from Middle Germany.

At any rate, it will only be possible in the future to fix the limits of the two species, and for that reason their discrimination is very important. It can hardly be doubted that this question can be satisfactorily solved by the material already in the European collections. Ornithologists should be very careful, however, to base their conclusions solely upon *breeding* birds, the habitats of which are *unquestionable*.

SYNONYMY.

Turdus alpestris (BREHM).

- 1828.—*Merula alpestris* BREHM, Isis, 1828, p. 1281 (*nom. nud.*).—*Id.*, Handb. Vög. Deutschl., p. 377 (1831) (*descr.*).—*Id.*, Isis, 1848, p. 92.—*Id.*, Jour. f. Orn., 1856, p. 376.—*Id.*, *ibid.*, 1856, p. 446.—*Id.*, *ibid.*, 1860, p. 239.
- 1855.—*Merula vociferans* BREHM, Naumannia, 1855, p. 281 (*nom. nud.*).—*Id.*, Jour. f. Orn., 1856, p. 446.
- 1855.—*Merula maculata* BREHM, Naumannia, 1855, p. 281 (*nom. nud.*).—*Id.*, Jour. f. Orn., 1856, p. 446.
- 1856.—*Merula insignis* BREHM, Journ. f. Orn., 1856, p. 440 (*nom. nud.*).
Turdus torquatus et *Merula torquata* auct. mult. part. nec LINN.

FIGURES.

DRESSER, Birds of Europe, II, pl. 15, fig. læv.

DESCRIPTION.

♂ ad. (*U. S. Nat. Mus. No. 106458; Sweet Waters, Turkey; August 8, 1877; W. Pearce*). Whole upper surface dull brownish black, gradually fading towards the rump, each feather narrowly margined with ochraceous gray, and considerably abraded; throat and upper part of fore neck similar, but the edges more whitish, and the chin nearly white; across the prepectus a broad, dirty-white semilune; the rest of the lower surface variegated of black and white, in nearly equal proportions, the individual feathers being white with a broad sub-marginal brownish-black V-shaped mark; upper surface of the wing of a ground color similar to that of the back, but lighter; the primaries narrowly edged with whitish-gray, slightly tinged with buff, while the secondaries and greater coverts are broadly edged, and the middle coverts broadly tipped with the same whitish color, making a large and conspicuous patch on the wing; lining of the wing and axillaries whitish, slightly mottled with dusky. Bill light, basal portion of upper mandible and tip dusky; feet horn-brown.

Compared with a specimen of typical *T. torquatus* in what appears to be exactly the corresponding plumage (♂ ad. No. 69969, Rostock, Germany) the differences are very great. The latter has the dark color of the upper surface more saturated, more uniform, and perceptibly browner, with light margins to the feathers; the throat is similarly uniform dark,

and the whole under surface behind the semilune is of the same blackish brown color, each feather very narrowly margined with whitish, the margins not being broader than those of the upper surface in the specimen of *T. alpestris* described. The upper surface of the wing is colored much as in the latter, but the light edges are very much narrower and their color much duller and grayer, while the median coverts are entirely different, being brownish black, very narrowly margined with light gray, like the feathers of the breast, and entirely without the broad white tips of *T. alpestris*; the lining of the wing is blackish-brown edged with light gray, the axillaries somewhat lighter and mottled with light grayish. This is the same plumage which is represented in Dresser's plate 14, Vol. II, foreground figure. In order to make a very good representation of *T. alpestris* in summer plumage, it is only necessary to take the same author's plate 15, right-hand figure, which is a *T. torquatus* in winter dress, and paint a white spot in the middle of each feather of the under side of the body, behind the semilune, similar to those of the figure to the left in the same plate, and to make the outer surface of the wing correspondingly white. That the specimen of *T. alpestris* described by me is not mislabeled, and that the bird is really in its summer plumage, is proven beyond a doubt by the yellow bill and the worn condition of the feathers.

♀ ad. (*U. S. Nat. Mus. No. 9662*; "Europe," June 7; Baron v. Müller). Nearly identical with the male, but the dark color browner and paler, especially on the upper side, on which, besides, the lighter margins are broader but less distinct and blending with the ground color, making the whole upper surface a nearly uniform grayish brown, which becomes decidedly gray on the lower back and rump;* the white tips to the median wing-coverts are more worn, but are plainly discernible; the whitish edgings to the throat-feathers are somewhat broader, and on the flanks the white speculum is often divided by a narrow blackish shaft stripe. Bill yellow; feet light horn brown.

For comparison I have a female (No. 18584) of the true *T. torquatus*, from Denmark, precisely in the corresponding plumage, with yellow bill, but perhaps a trifling less worn. The same differences exist as between the males, but the coloration of the back is even more different in the females, as in my *T. alpestris* ♀ it resembles that of a very worn female *T. pilaris* rather than that of *T. torquatus*. The large whitish wing-patch, the white under wing-coverts, the white streaked throat, and the speckled, V-marked under surface at once distinguish the female *T. alpestris*.

I have no *adult* winter specimens of the latter species, but it is safe to assume, that the distinguishing characters will be found to be still more pronounced, for the white margins are probably much broader. On the under surface of an adult *winter* male *T. torquatus* from Norway

*The central pair of tail-feathers is new, in fact have not yet grown out to the same length as the rest; like these they are uniform blackish brown; a few of the upper coverts are also new and just out; these are decidedly tinged with yellowish olive.

(No. 98003; Nov. 20) these margins are not half as broad as in the adult summer male of *T. alpestris*.

♂ *jun.* (*U. S. Nat. Mus. No. 56308; Galicia; W. Schlüter*).—The entire upper surface olive gray, of a tinge quite similar to that of the corresponding plumage of *T. musicus*, only that the feathers of the upper back show dusky centers; top of head and ear-coverts suffused with brown; chin, throat, and upper fore neck of a buffish white streaked with dusky along the shafts of the feathers, much after the fashion of *T. pilaris*; the prepectoral semilune of a light smoky gray, each feather terminated by a subapical brownish band and a buffish white margin; rest of under surface white, slightly suffused with buff on the sides and flanks, each feather with a submarginal, V-shaped, blackish brown mark, the feathers on the side of the breast having, in addition, a subapical blackish spot between the point of the V and the tip of the feather; on the under tail-coverts the dusky mark is more U-shaped; wings much as in the adults, but more suffused with buff, except the tips of the median coverts and the edges of the inner great coverts, which are nearly pure white. Bill horny blackish brown; feet light horn brown.

The differences between the specimen described above and a young male of *T. torquatus*, from Silesia (No. 56307), in a plumage exactly corresponding, are even greater than between the quite adult specimens of the two species. The specimen in question agrees very closely with Naumann's pl. 70, fig. 2, only that it is somewhat blacker and the margins on the back less distinct. The appearance of the smoky gray pectoral semilune is very curious; it is of exactly the same color in both specimens, though slightly lighter in *T. alpestris*, on account of the buffy margins being broader; but while in this bird it appears as a dark collar on the light under surface, it forms a similar, but light, patch on the dark under side of *T. torquatus*. It is unnecessary to carry the comparison any further, as anybody will understand who takes the trouble of placing Naumann's figure, quoted above, alongside the left-hand figure of Dresser's work (vol. II, pl. 15).

♂ *juv.* (*U. S. Nat. Mus. No. 9661; "Europe," July 3, 1836; Baron v. Müller*).—Upper surface dull brownish black, with brownish buff margins to the feathers, and sharp creamy white shaft-streaks, terminally edged with blackish on the scapulars, and on the small and median upper wing-coverts, while on top and sides of head similar, but darker, smaller, and less sharply defined streaks are found; chin and throat buffy white with only a few indistinct dusky spots; rest of under surface dusky with irregular whitish cross-bars, on breast and sides tinged with buff, each feather whitish with a terminal dusky margin and a U-shaped dusky mark, or dusky with a subapical whitish U-shaped spot and a subbasal whitish shaft-streak, the white gradually predominating backwards; the wings essentially as in the adults, except as regards the coverts already referred to, and the stronger tinge of buff to the outer webs; tail uniform brownish black slightly margined with buffy gray at the tips. Bill horn brown; feet of the same color, but lighter.

Notwithstanding the uncertainty as to the true locality of this specimen and the want of a typical *T. torquatus* in the corresponding plumage for actual comparison, I have but little doubt that it is a *T. alpestris* just out of the downy stage. If Keulemann's representation of a "young on leaving the nest" (Dresser, B. of Eur., vol. II, pl. 14) is only approximately correct, these birds are separable already in the first plumage by the much greater extent of the white on the

wing in *T. alpestris*; I also believe that it is lighter underneath, judging from Dresser's description. As to the locality of the specimen in question, there is reason to believe that it was collected at the same place as the adult female described above, and that it hails from some place in Upper Bavaria.

I append the following list of specimens examined by me and their measurements. It will be seen that there is practically no difference in size between the two species:

Measurements of TURDUS ALPESTRIS.

U. S. Nat. Mus. No.	Collector and number.	Sex and age.	Locality.	Date.	Tail-feathers.			Remarks.
					Wing.	Exposed culmen.	men.	
106458	W. Pearce ..	♂ ad.	Sweet Waters, Turkey	Aug. 8, 1877	mm.	mm.	mm.	Yellow bill. Do. Do. Dusky bill. Yellowish bill. Dusky bill.
108891	Schlüter ...	♂ ad.	Karpathian Mountains	May 21, 1884	142	110	18	
9662	v. Müller ...	♀ ad.	"Europe"	June 7, —	139	107	18.5	
56308	Schlüter, 349	♂ jun.	Galicia .....	.....	133	99	18
108892	Schlüter ..	Jun...	Karpathian Mountains	May 17, 1884	135	102	18	
9661	v. Müller ...	♂ juv.	"Europe"	July 3, 1836	140	108	19	
					126	83	15	

Measurements of TURDUS TORQUATUS.

77766	Gätke	♂ ad.	Heligoland	Apr. —, 1878	139	111	19	Yellow bill.
98003	.....	♂ ad.	Bergen, Norway	Nov. 20, 1881	142	107	18	Dusky bill.
18944	Drouet	♂ ad.	France .....	.....	142	108	.....	Do.
69969	S. Burchard.	♂ ad.	Rostock, Germany.....	.....	140	107	20	Yellow bill.
18584	.....	♀ ad.	Denmark .....	.....	143	112	19	Do.
56307	Schlüter, 346	♂ jun	Silesia, Germany.....	.....	138	104	20	Dusky bill.

For the sake of completeness I add the following synonymy of

Turdus torquatus LINN.

1758.—*Turdus torquatus* LINN., S. N., 10 ed., I, p. 170. *Id.*, S. N., 12 ed., I, p. 296.

1831.—*Merula montana* BREHM, Handb. Vög. Deutschl., p. 375.

1831.—*Merula collaris* BREHM, Handb. Vög. Deutschl., p. 376.

FIGURES.

NAUMANN, Naturg. Vög. Deutschl., II, pl. 70.—DRESSER, Birds of Europe, II, pl. 14 and pl. 15, fig. dextra.

SMITHSONIAN INSTITUTION, March 31, 1886.

NOTE.—Since the above was written I have received from Mr. W. Schüter two more Ring-Thrushes which fully bear out the foregoing conclusions. I wrote to him to send me two *Turdus torquatus* from the Karpathian Mountains, and received two *T. alpestris*! They are now U. S. Nat. Mus. Nos. 108891 and 108892, and their dimensions have already been interpolated in the table above.

The first-mentioned specimen is an adult male, collected May 21, 1884. The bill is yellow and the collar white. The plumage is fresher in color

and less worn than that of No. 106458, described above, with which it otherwise agrees very well, except that the speculum is divided as in the female, No. 9662.

The other specimen is a younger bird, corresponding exactly to No. 56308, described on a previous page, but being collected May 17, it is in a more worn plumage and the bill is pale yellow. It is evidently a bird in its first spring.

I have, consequently, now before me the following series of *Turdus alpestris*: (1) young bird in nesting plumage; (2) young in the first winter; (3) young in the first spring; (4) old male in spring; (5) old male in autumn; (6) old female in breeding plumage.

Add thereto the different habitat and the difference in voice, as pointed out by Brehm, and there can be no room for doubt that there are two species of Ring-Thrushes in Europe.

SMITHSONIAN INSTITUTION, *May* 29, 1886.