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# DESCRIPTION OF A NEW HERON (ARDEA VIRES-CENS ANTHONYI) FROM THE ARID REGION OF THE INTERIOR OF NORTH AMERICA.

#### BY EDGAR A. MEARNS, M. D.

ON comparing a series of Green Herons, in breeding plumage, from the New and Salton Rivers, streams of the Colorado Desert crossing the Mexican boundary line, collected by the writer, in April and May, 1894,<sup>1</sup> with specimens in similar condition from other regions, the Colorado Valley form is found to constitute as valid a race of the *Ardea virescens* as any of those hitherto separated. It is proposed, therefore, to describe it as a new subspecies, and to name it *Ardea virescens anthonyi*, in honor of Mr. A. W. Anthony, of San Diego, California, who, during recent years, has contributed so much to our knowledge of the avifauna of the West, especially the region of the Pacific coast.

## Ardea virescens anthonyi, new subspecies.

Subspecific characters.— Similar to Ardea (Butorides) virescens of the eastern United States, but slightly larger, and paler throughout, with the light markings of the wings, neck and throat much less restricted, and whiter.

Type.— No. 135,576, Smithsonian Museum (original No. 10,529), **3** ad. Taken at Seven Wells, Salton River, on the Colorado Desert, Lower California, near monument No. 213, Mexican boundary line, April 12, 1894, by Dr. Edgar A. Mearns. Length, 485; alar expanse, 740; wing, 207; tail, 79; culmen, measured from frontal feathers, 59; tarsus, 55; middle toe and claw, 58 mm.

Geographic distribution.— This is a bird of the arid regions of the interior. There are specimens in the Smithsonian collection from Yreka and Sacramento, California, from the Valley of Mexico, and from Santa Efigenia, Tehuantepec. It breeds on the Verde River, in Central Arizona, and was found by us on the streams of the Mexican boundary line, from the San Bernardino River (monument No. 77), to the Coast Range of California, in which region it was also breeding.

<sup>1</sup>Eighteen specimens were collected by the writer, in Central Arizona; and fourteen were collected by him and his assistant, Mr. Frank X. Holzner, on the recent re-survey of the Mexican boundary.

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This Heron bears no close resemblance to either of the four insular forms (saturatus, frazari, bahamensis, and brunnescens) hitherto described; but, as would be pre-supposed, is most closely related to the continental species, Ardea virescens, from which it differs in being larger. It is, in fact, the largest of the forms mentioned. Pallor is its distinguishing characteristic. The usually black sagittate spots of the neck are brownish, and fewer in number. The sides of the neck are purplish chestnut and rufous instead of glaucous bay. The green of the wings is yellowish bottle green, the tail blackish bottle green, and the scapulars glaucous gray. The under surface of the body and under side of wings are much paler and less slaty than in virescens. The pale or whitish edging of the wing-coverts, and on the edge of the wing, are much broader and whiter. The whitish of the under side of the head and neck extends continuously from the bill to the end of the pectoral plumes, and is less invaded by the dark coloring of the sides of the neck.

From  $frazari^1$  and  $saturatus^2$  it differs in its larger size, and much paler coloration, with much less restriction of the pale or whitish markings. The metallic colors of the upper surface are wholly different.

From *bahamensis*<sup>3</sup> it is readily distinguished by its much greater size and different coloring, though the Bahama bird is, perhaps, even paler; and from *brunnescens*<sup>4</sup> it may be instantly recognized by the presence of white on the throat and neck, which is wanting in *brunnescens*, in which the whole neck and throat are rufus brown, with a tinge of orange brown on the chin.

The dimensions of this subspecies and of *virescens* (*verus*) are shown in the appended table of measurements, taken in millimeters from fresh specimens, measured in the field by the writer.

<sup>1</sup> Ardea virescens frazari Brewster, Auk, V, p. 83, 1888. "Habitat. Near La Paz, Lower California."

<sup>2</sup> Described by Mr. Ridgway from Swan Island, West Indies.

<sup>3</sup> Ardea bahamensis Brewster, Auk, V, p. 83, 1888. "Habitat. Bahamas (Rum Cay, Watling's Island, Abaco)."

4 Ardea brunnescens. "Gundl. Mss." LEMB. Aves Cuba, p. 84, 1850. "Habitat. Cuba."

| Number of<br>Specimens, Sex,<br>and Age.  | Locality.   | Length.                         | Alar Expanse.                          | Wing                            | Tail.                      | Culmen from Feathers.      | Tarsus.                          | Middle Toe and Claw.       |
|---|---|---------------------------------|--|---------------------------------|----------------------------|----------------------------|----------------------------------|----------------------------|
| 6 Adult males.<br>1 Adult male.<br>9 Adult males.<br>4 Adult females.<br>4 Adult females. | Salton and New Rivers, Colorado Desert.<br>San Pedro River, Mexican boundary line.<br>Verde River, central Arizona.<br>Salton and New Rivers, Colorado Desert.<br>Verde River, central Arizona. | 498<br>505<br>497<br>488<br>490 | 746<br>760<br>730<br>735<br>735<br>735 | 207<br>210<br>203<br>203<br>200 | 78<br>85<br>77<br>79<br>76 | 62<br>60<br>60<br>61<br>61 | 56<br>55<br>54<br>54<br>54<br>54 | 58<br>58<br>59<br>55<br>58 |
| 16 Adult males,<br>8 Adult females.   | Southwestern border of the United States.   | 498<br>489                      | 73 <sup>8</sup><br>735                 | 205<br>202                      | 77<br>78                   | 61<br>61                   | 54<br>54                         | 58<br>56                   |

### AVERAGE MEASUREMENTS OF Ardea virescens anthonyi.

Ardea virescens.

| 1 Adult male.       | Fort Snelling, Minnesota.                | 480 | 705 | 197 | 75 | 64 | 54 56 |  |
|---------------------|--|-----|-----|-----|----|----|-------|--|
| 5 (Adult?) females. | Highlands of the Hudson River, New York. | 451 | 679 | 183 | 76 | 58 | 51 -  |  |
|                     |  |     |     |     |    |    |       |  |

## HAWK FLIGHTS IN CONNECTICUT.<sup>1</sup>

BY C. C. TROWBRIDGE, COLUMBIA COLLEGE.

DOUBTLESS many naturalists and collectors have observed large flights of different species of birds, from time to time, along the eastern coast of the United States, and they have probably noted also that certain birds were sometimes common and even abundant in flights, while at all other periods they were very rarely seen in that part of the country, where they had suddenly become so plentiful.

Although the reasons for the appearance of unusual numbers of birds, in some localities, at one time, have not always been understood, causes of the occasional abundance of some of the

<sup>1</sup> Read before the New York Academy of Sciences, May 13, 1895.