



Anolius Carolinensis.

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ANOLIUS CAROLINENSIS.—*Cuvier*.*Plate VIII*

**CHARACTERS.** Head flattened, and greatly elongated, covered with minute scales; nostrils distant from the end of the snout; tail very long, verticillate; a distensible fold of skin, or dewlap, under the throat; fingers and toes slender, elongated, distinct.

**SYNONYMES.** *Lacerta viridis Carolinensis*, *Catesby*, Carolina, &c., vol. ii. tab. lxxv.

*Anolis bullaris*, *Daudin*, Hist. Nat. des Rept., tom. iv. p. 69.

Green Carolina Lizard, *Shaw*, Gen. Zool., vol. iii. p. 243.

*Anolius Carolinensis*, *Cuvier*, Reg. An., tom. ii. p. 50.

*Anolius bullaris*, *Harlan*, Jour. Acad. Nat. Scien., vol. vi. p. 16.

*Dactyloa bullaris*, *Wagler*, Natürlich. Syst. der Amphib., p. 148.

Green Lizard, or Chameleon, *Vulgo*.

**DESCRIPTION.** The head is much elongated, flattened, and canaliculated between the orbits, full and rounded at the temples; the snout is rather obtuse; the nostrils are placed at some distance behind its extremity, and open upwards and outwards. The head is mostly covered with small, nearly equal sized, polygonal plates, with a few larger ones, eight or nine in number, disposed in a semicircle on the superior orbital margins, which are somewhat prominent; those on the occipital region are smallest of all, and surround a single plate of larger size. The mouth is large; the upper jaw is armed with fifty or sixty teeth, and the lower with forty-five or fifty; in both jaws the six or eight posterior teeth are the larger; the labial plates are small, quadrilateral, and sixteen or eighteen in number.



The eyes are rather small, but very brilliant, with a dusky pupil and an iris of burnished gold; the external meatus of the ear is contracted and small—the tympanum is visible, though deeply placed. Under the throat is a dewlap, or fold of skin, that can be distended at will.

The body is elongated, but hardly cylindrical, the abdomen being broader and the spine narrower, giving it at times a triquetrous form, and is covered with scales so extremely minute, as to give the whole surface a granulated appearance. When examined with a glass, they appear nearly of equal size, hexagonal, or rounded, not carinated, except over the thighs, but rather more elevated in their centre. There is neither cervical, dorsal or caudal crest. The abdomen is covered with ovalo-hexagonal plates, slightly imbricated and carinated. The extremities are covered above with small, imbricated and carinated scales, and with plates similar to those on the back below.

The anterior extremities are rounded; the skin on the under surface of the antepenultimate phalanges of the four external fingers is spread out into an oval disk, with transverse scales, by means of which the animal can attach itself to smooth surfaces; the fingers are five in number, each provided with a small, short, very delicate and curved nail. The posterior extremities are longer, and terminate in five toes, provided with the same number of nails; the ante-penultimate phalanges are arranged in the same manner as in the fingers. The tail is cylindrical, very long, and covered with large rhomboidal and verticillated scales.

**COLOUR.** The whole superior surface of the head, body, tail and extremities is of a beautiful golden-green; the abdomen, greenish-white; the sac under the throat becomes vermilion when inflated; when flaccid it is white, with occasional lines and spots of red. The inferior surface of the extremities is white, clouded with green; the superior surface of the fingers and toes is brown, and the inferior surface of the same colour. We observe frequently a black band on the temple, and a row of small black dots along the superior surface of the tail, as repre-



sented in the accompanying plate; but these all disappear when the animal assumes its greenest tint.

In giving this as the ordinary colour of the *Anolius Carolinensis*, it must be remembered that the colour varies greatly at different times, according to the season of the year, the weather, health of the animal, activity of the circulation, &c. In cold weather, and in confinement, it is frequently dark brown, or brown with a vertebral line of white, seeming an entirely different animal; in warm weather it assumes, in the space of a few moments, every variety of shade, from dark brown to the most beautiful golden-green. These variations in the colour are so great, and take place so suddenly, that it is often supposed to depend on the will of the animal, or the colour of the substance on which it is placed.

**DIMENSIONS.** Length from the tip of the snout to the vent,  $2\frac{3}{4}$  inches; length of tail beyond the vent,  $4\frac{1}{2}$  inches; total length,  $6\frac{3}{4}$  inches.

**GEOGRAPHICAL DISTRIBUTION.** The *Anolius Carolinensis* is first seen about latitude  $35^{\circ}$  in the Atlantic States, whence its range extends to the Gulf of Mexico, and westward to the Mississippi; and, according to Dr. Sibley, as far as Natchitoches, on Red river.

Too much attention cannot be paid to the geographical distribution of animals, as no species can be considered as thoroughly known until we are acquainted with all its localities, as well as its habits.

It is from inattention to the geographical distribution of animals, that some of the best zoologists of our day have been led into error, and described animals as existing in countries where they are never seen. Thus Dumeril and Bibron, having received specimens of the *Anolius Carolinensis* from Georgia, and also from Milbert, then a resident at New York, say they have reason to believe it is found in a great part of the United States—and so it would be did it exist in the intermediate country between New York and Savannah; but in truth its



limits are among the most circumscribed of all our animals; it is not found farther north than lat.  $34^{\circ}$ , and consequently not within six hundred miles of New York; and its southern limit being the Gulf of Mexico, it follows then that four-fifths of the United States is not inhabited by this animal. Milbert received his specimens from the south, and afterwards sent them to Paris.

Again: they say they have received a *Cyclurus* from the same source, and suppose it to be common in our country, where, perhaps, never were seen half a dozen living animals of that species, and they were all brought from Cuba, and other West India islands, which is its native country.

**HABITS.** The *Anolius Carolinensis* is a bold and daring animal, haunting out-houses and garden fences; and in new settlements it even enters the houses, walking over the tables and other articles of furniture in search of flies. It is very active, climbing trees with great rapidity, and leaping with ease from branch to branch or from tree to tree, securing itself even on the leaves, by means of the oval disks of the fingers and toes, which enable it also to walk easily on glass, and on the sides and ceilings of rooms. It feeds on insects, and destroys great numbers, seizing them suddenly, and devouring them, unrestrained even by the presence of man.

In general they hibernate later than other animals of the same class; their favourite retreats being gardens and old buildings; they often retire to green-houses or conservatories, where they may be frequently seen active, even in winter, but never of that rich yellow-green as in the summer season. In the spring season they are extremely quarrelsome; two males seldom meet without a furious battle, which frequently results in the loss of part of the tail, or some other injury, to one or both of the combatants.\* Before the contest, the animal

\* Le Père Nicholson, in describing the *roquet*, an animal supposed for a long time to be identical with ours, has very well described the habits of the Carolina *Anolius*. *Essai sur l'Hist. Nat. de Saint Domingue*: Paris, 1776, p. 348.



usually remains stationary for a moment, elevates and depresses its head several times, distends his dewlap, which now becomes of a bright vermilion, and then suddenly springs at his enemy. After the first heats of spring have passed, they become less quarrelsome, and many are seen quietly living together in the same neighbourhood; they retain at all times the habit of distending the dewlap, even when quietly basking in the sun; and at those times the colouring of the animal has the liquid brilliancy of the emerald.

GENERAL REMARKS. Catesby was the first who described this animal, under the name of Green Lizard of Carolina,\* but he also gives another plate of a similar Lizard of Jamaica.† Linnæus describes the Jamaica species (*Lacerta viridis Jamaicensis*) as the *Lacerta bullaris*, and without further reference. Daudin and succeeding writers give an additional reference to the Green Lizard of Carolina; which is the more remarkable, as Catesby himself seemed aware of the difference between these animals, for he gives them different figures, and a different geographical distribution. Cuvier was the first since Catesby to recognise the Carolina *Anolius* as a distinct species, "from the very long, flat muzzle and the black band at the temples." It has already been remarked that this band disappears when the animal assumes its greenest tint; we must therefore depend on the "long flattened muzzle," and the distance of the nostrils from the snout, chiefly, in determining this species.

Dumeril and Bibron suppose this animal to be common in Cuba; and Cocteau has given a figure and description of the *Anolius Carolinensis* in Ramon de Lasagra's "Histoire de l'Isle de Cuba."

Now, if the colours of that plate were taken from a living specimen, and are true to nature, the animal certainly is not identical with ours. In Cocteau's figure, the shoulders and neck are represented as indigo-blue, a colour never seen in any part of the *Anolius Carolinensis* with us. Again, the sack or dewlap is

\* Catesby, Carolina, &c., vol. ii. tab. 65.

† Catesby, loc. cit., vol. ii. tab. 66.

coloured cinereous, with a few interrupted white lines, while, in our animal, the same part is always either white, with a few spots and lines of red, or of a beautiful vermilion.

Besides, in Cocteau's description,\* "the scales are carinated on the back and sides," and there is a cervical crest, "carina cervicali humili,"† while our animal is entirely ecarinate, &c.

\* Loc. cit., p. 127.

† Reptilia, tab. xi.



Holbrook, John Edwards. 1842. "Anoliuus carolinensis – Cuvier." *North American herpetology; or, A description of the reptiles inhabiting the United States* 2, 67–72. <https://doi.org/10.5962/p.326779>.

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