Scaphiopus solitarius.
SCAPHIOPUS.—Holbrook.

Genus Scaphiopus.—Characters. Body short, thick, swollen; head short, minute teeth in the upper jaw and on the palate, in two groups between the posterior nares; tympanum distinct, though small; parotid gland small, from which a watery fluid can be pressed; posterior extremities short, stout, and muscular; leg shorter than the thigh; a spade-like horny process occupies the position of a sixth toe, and is used by the animal in excavating his retreat; males with a sub-gular vocal sac.

SCAPHIOPUS SOLITARIUS.—Holbrook.

Plate XXVII.

Characters. Back olive coloured and somewhat warty, with two lines of pale yellow extending from the orbits to the vent; beneath yellowish-white.


Description. This singular animal approaches nearly to the toad in form. The head is short, the snout obtuse. The upper jaw is greenish-yellow, the lower yellowish-white. The nostrils are very near the extremity of the snout, and placed on a rounded prominence. The eyes are large and very prominent, almost resembling warts or excrescences; the pupil is black, the iris golden, very brilliant, and subdivided into four portions by two black lines. The tympanum is small,
and yellowish-green; behind the tympanum is a small parotid gland, from which minute jets of watery fluid can be pressed.

The back is yellowish-green, clouded with dark-brown blotches, and covered with small warts of different sizes; many of these are of a dark-brown colour; others, reddish or orange. Two decurved lines of pale yellow extend from the orbits to the vent; on each flank is another line of the same colour, but less distinct and shorter, reaching only from the shoulder to the thigh. The inferior surface of the throat is yellowish-white; the abdomen dirty-white, and granulated posteriorly.

The anterior extremities are long, their colour yellowish-green, clouded with a few blotches of brown on the upper surface,—a reddish tinge on the lower, approaching to flesh colour. The fingers are four in number, short and distinct. The male is distinguished by having the two inner ones black above. The posterior extremities are short, but very muscular, and have the leg conspicuously shorter than the thigh; they are yellowish-green on the upper surface, marked with a few blotches and transverse bands of dark brown, and sometimes with a few small reddish spots. The lower surface of the thighs is flesh-colour, and granulated. The toes are five in number, and fully palmated. On the internal margin of the metatarsus is a horny spade-like process, containing a bone, which moves by an imperfect joint; the breadth of this process is about a line and a half, its length one line; the cutting edge is jet black.

The skin is very delicate, and though warty or granulated after exposure, when first taken from its hole the Scaphiopus presents the etiolated appearance of a real subterraneous animal.

**Dimensions.** Length of body, 2½ inches; of the thigh, rather less than an inch; of the leg, ¾ of an inch; of the tarsus and toes, 1½ inches; of the fore-arm, with carpus and fingers, nearly an inch.
SCAPHIOPUS SOLITARIUS.

Geographical Distribution. Its range is more extended than I at first apprehended. It is found in Carolina and Georgia. Dr. Troost has sent me a specimen from Tennessee, and Dr. Dekay has observed it in the state of New York.

Habits. This is a strange animal—an odd mixture of toad and frog, having the teeth of the one, and the rudimental post-tympanal glands of the other; it approaches, however, nearest the toad in its form and habits, as it never ventures in water except at the breeding season: it lives in small holes about six inches deep, excavated by itself in the earth, which for a long time I mistook for holes of insects; here it resides, like the ant-lion, seizing upon such unwary insects as may enter its dwelling. It never leaves its hole, except in the evening, or after long continued rains. It shows great dexterity in making this dwelling, sometimes using the nates, and fastening itself by the spade-like process; at others it uses the legs with these processes, like a shovel, and will in this way conceal itself with great rapidity. In progression its motions are not very lively, and its powers of leaping but feebly developed. It appears early in March, after the first heavy rains of spring, and at once seeks its mate. I have met them even in very cold weather, with snow on the ground.

General Remarks. This animal is perhaps somewhat allied to the Ceratophris of South America, which has teeth, the posterior extremities short, and the hind feet furnished with a movable unarmed tubercle. The Rana cultripes of Cuvier* would seem to be furnished with a process more nearly resembling that of our animal.

The animals of the family Ranoidea delight in the sun, and may at all times be seen sitting half emersed in water, even when his rays are the most intense. They are all diurnal, or seek their food in the day time, with one exception only, the Scaphiopus solitarius, which passes its days in holes prepared by itself, and feeds on such insects as may unwarily enter its dwelling.

* Cuvier, Regne Animale, tom. ii. p. 105.
Family II. HYLOIDEA.

CHARACTERS.

I. This family differs greatly from the last, in having the extremities of the toes and fingers enlarged into a disk or viscous pellet, by means of which they can sustain themselves on smooth surfaces, as leaves, glass, &c. This is indeed an important character, and influences their whole mode of existence, as it enables them to live on trees or shrubs, or plants, where they are always found except in the breeding season.

II. They differ also from the family Ranoidea again in having the inferior surface of the belly in general covered with small granulations, with glandular openings; in all other respects they are similar, as in the teeth, tongue, &c. &c.

This family includes several genera, two only of which have hitherto been observed in the United States, viz: Hyla and Hylodes.

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