

curved, and towards the apex even rolled in, while the branches and ramuli are all directed to one side, and incurved in the same manner. *Leaves* imbricated on all sides, remote below, more numerous above, short, erect, divided into 5–8 setaceous, articulated segments, the central ones of which are three or four times as long as the body of the leaf; the lateral segments are much shorter. The *reticulation* of the body of the leaf minute; that of the segments large. Towards their apex the segments appear to be cylindrical, are simply articulated, and in the dry state, have the joints often collapsed in alternate directions, as in many *confervæ*. *Fructification* unknown.

This most singular species I extricated from some other mosses communicated to Dr. Hooker and myself, by our excellent correspondent, Mr. Charles Fraser. The stems are flexible and exceedingly coriaceous, and the ends of the branches and ramuli, rigidly incurved.

TAB. XXIII. Fig. 1. Plant nat. size. 2. A portion magn. 3. Leaves. 2 and 3 magnified.

REMARKS on the *American species of the* GENERA *HYLA and RANA*. By Captain JOHN LE CONTE of the United States army. Read 16th May, 1825.

DAUDIN in his excellent history of the genera *Hyla*, *Rana*, and *Bufo*, has enumerated six species of the first genus, as inhabiting North America. Two of these, *H. venulosa*, and *H. palmata*, have certainly never been found in our country, and are probably natives of South America. The *H. ocularis* I consider a variety of *H. squirella*; there will then remain only three that were known to European naturalists, and to

these I shall add two new species. Before proceeding to the description of them, it will be well to make some remarks upon those already known; as the descriptions are in some degree faulty, not having been made from living specimens. I shall adhere to the same order that M. Daudin has observed.

1. *Hyla lateralis*. The description of this animal should be corrected, by saying, that the lateral line, from which its name is derived, is most commonly silvery, in some few instances yellow. Inhabits in great numbers in Carolina and Georgia, particularly on water plants, such as the *Pontederia cordata*, the *Nymphæa*, and others, that generally grow in ditches, and on the margin of rice fields. They are very noisy, particularly at night, their voice somewhat resembles the sound of a bell.

2. *H. squirella*. Generally of a brown or cinereous colour above; in some irregularly varied or speckled with paler or darker: a black, or dusky, or bark brown band extends from the nostrils to the eyes, and a narrow white stripe from near the nostrils, along the upper lip reaches almost to the insertion of the fore legs: beneath whitish, granulate on the abdomen and under side of the thighs: Head rather obtuse; iris golden: thighs longer than the shanks, yellow on the exterior part: legs more or less distinctly barred with darker; hind toes semi-palmate.

Length one inch and a quarter.

Inhabits under logs, and the bark of decaying trees; I have never seen it in, or near the water.

The figure of this species in Daudin is very different from any specimen that I have ever seen, both in colour and in marks; I do not deny but that it may have been found of a green colour, as he represents it, and marked in the same manner; but the same error occurring in his delineation of the next species, I am inclined to think that it has been coloured from report and description, rather than from the animal itself; indeed,

whatever the colour may be, it can scarcely remain unchanged for six months in a preserved specimen; all that I have ever attempted to preserve, lost their colour in less than two months. There are three principal varieties of this species.

- α. Above cinereous, with a straight, or curved, or angular bar between the eyes; *back* with a few spots of dusky, sometimes confluent, and forming different figures of irregular shapes; and sometimes uniting into a line on each side of the body, of greater or less length.
- β. Above cinereous, irregularly spotted with darker; the line between the eyes broken into two or more spots.
- γ. Above entirely brown, without spots, exterior part of the thighs not yellow.

In all these, the dark band on the head, and the white line on the lips, are the only marks which remain constant; in one variety, even the yellow colour on the thighs vanishes; there are hardly any two individuals alike, and so different are they from one another, that a person who had not observed them accurately for a length of time, would be led to think, that there were almost as many species as individuals.

3. *H. femoralis.* Above dark cinereous, or pale brown, irregularly marked with a few confluent spots of darker or dusky, the one between the eyes the largest, triangular, truncate behind at the apex. the others oblong, a black, somewhat crenulate and interrupted line extends from the eyes to the insertion of the hind legs, and another shorter one of the same colour, from the same place to the insertion of the fore legs, forming an angle; the first being bounded above on the fore part with pale cinereous or brown; *beneath* whitish, granulate on the abdomen, and underside of the thighs: *Head* somewhat obtuse, irides golden, thighs longer than the shanks, darker on the exterior part, and spotted with yellow, the spots roundish, irregularly placed, and unequal in number: fore and hind

legs bordered with dusky, the latter on the fore part, the former on the hind, and very obscurely barred with darker ; hind toes semi-palmate.

Length one and a half to one and three quarters of an inch.

β. *Above* brown, the greater part of the back occupied by a large irregular blotch of darker, containing two or three roundish spots of paler, legs strongly barred with darker.

Inhabits with the last.

4. *H.* delitescens.* *Above* cinereous, irregularly spotted and speckled with darker ; *beneath* whitish, granulate on the abdomen, and under side of the thighs : *head* somewhat obtuse, irides golden, lips whitish, chin speckled with brown, exterior part of the thighs, and the whole of the under side of both the fore and hind legs yellow ; region of the anus varied with cinereous ; legs not barred, but varied and speckled with darker, hind toes semi-palmate : somewhat larger than the last.

Inhabits Georgia, under the bark of decaying trees.

H. versicolor.* *Broader*, and not so tapering in form as the others ; *above* covered with small warts, colour varying at the will of the animal, from pale brown to ash and green, with a few black spots ; at times when they are brown, the back is more or less marked with an acute angled cross, which, however, vanishes with a change of colour ; *beneath* white, granulate on the abdomen, and under side of the thighs : *head* and auricles small, irides golden, hind part of the abdomen and hind legs beneath yellow, hind legs of moderate length ; *toes* semi-palmate.

Length two inches.

Inhabits on trees in the Northern States. Has a moister or more viscid look than either of the other species, and more resembles a toad in form. Is considered by the vulgar as poisonous. During damp weather, or on the approach of rain, croaks continually.

It is surprising that this species, so common in the part of America that has been most visited by foreign naturalists, has as yet been noticed by no one. It may have been confounded with the *H. viridis* of Europe, which, however, it but little resembles.

The animals comprised in the division of reptiles called Batracian, have long claimed a considerable degree of attention from me, and I present indications of six new species, which on a future occasion I shall more fully describe, and accompany with the necessary figures.

1. *RANA** *fontinalis*, or common spring frog; colour above varying from yellow green to dark olive, sometimes irregularly spotted with dusky, particularly on the sides, with a raised interrupted line extending from the eye towards the hind part of the body.
2. *RANA** *palustris*, or marsh frog; colour above pale brown, with two longitudinal rows of dark brown spots on the back, and the same number on the sides, hind part of the thighs yellow, spotted with black.
3. *RANA** *sylvatica*, or wood frog; colour above varying from light to dark brown, with two interrupted longitudinal lines of black, a dark brown stripe extending from the tip of the nose through the eyes, and covering the auricles.
4. *RANA** *pumila*; pale green; back with a decurved line on each side, bounded with dusky, head with a triangular spot between the eyes, legs barred with dusky.
5. *RANA** *gryllus*, (Savanna cricket;) above warty, colour various, with a triangular spot of darker on the top of the head between the eyes, and a paler line extending from the apex of this spot to the vent, hind part of the thighs yellowish or whitish, with one or two lines of dusky or brown.
6. *RANA** *nigrita*; above black, speckled with small white warts; middle of the back cinereous with an interrupted stripe of black, upper lips with a white line; beneath granulate whitish; irides golden; legs barred with whitish, hind part of the thighs brown: hind legs very long.