## BIOLOGICAL SOCIETY OF WASHINGTON

## A NEW HYLELLA FROM NUSEU

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From a bromeliaceous plant in a tree, in the northern part of the state of Morelos, México, I obtained a single specimen of a small hylid frog which I refer to the genus Hylella. I dedicate the species to the ancient people, a vestige of whose civilization is represented by the ruins of a temple on a crag close to the type locality.

## Hylella azteca, sp. nov.

Type.-EHT-HMS No. 17525, collected at Tepoztlan, Morelos; summer, 1938, by E. H. Taylor.

Diagnosis.-A small hylid frog having toothless vomers and a vocal sac; tympanum more than half diameter of eye; toes nearly completely webbed, the terminal pads larger than in Hylella sumichrasti; a prominent, compressed tarsal fold; under surface of arm granular.
Description of the type.-A small, flatheaded frog, the width of the head ( 8.2 mm .) greater than its length ( 7.1 mm. ); snout with an indistinct canthus rostralis; eye small, the diameter ( 2.3 mm .) much less than the length of the snout ( 3.5 mm .) ; width of the upper eyelid ( 2.1 mm .) very much smaller than the interorbital width ( 3.4 mm .) ; tympanum rather large, very distinct, its diameter ( 1.3 mm .) more than half the length of eye ( 2.3 mm .), which is very minutely less than distance between eye and nostril; regions about nostrils swollen, with a distinct depression between; loreal region not concave, but sloping rather abruptly to edge of mouth; posterior part of jaws somewhat outflaring, leaving the tympanum in a sloping, rather than in a vertical, position.

Tongue subcircular, adherent save along the posterior edge, which is free, and without emargination posteriorly; slits to the vocal sac, large ( 2.3 mm .). Choanae moderately large, widely separated, without any trace of an elevation on the vomer, or trace of teeth; the palatal groove nearly straight, as long as the distance between choanae, and closer to them than to the anterior end of palate; openings of the eustachian tubes larger than choanae.

On dorsal surface, the skin is smooth, lacking tubercles or pustules; under the lens, however, the skin appears minutely wrinkled or corrugated; a thickened fold begins behind eye, crosses the upper edge of tympanum where it turns down and disappears above arm. (It is impossible to say whether there is a continuous lateral fold to groin as in $H$. sumichrasti since the skin is loose on one side, and drawn tight on opposite side; however, if it is present it is much less distinct than in H. sumichrasti.) There is a small, but distinct axillary web attaching midway on upper arm; throat, chin, breast and abdomen strongly granular, as well as under surface of arm and the greater part of the ventral and posterior parts of the femur.

Arm moderately long, the digits with strongly dilated disks; digits about $1 / 3$ webbed between the three outer fingers; between first and second fingers the web a mere fringe; a thickened fold on outer side of fourth finger and hand; distal subarticular tubercle of fourth finger bifid; other tubercles single, rather small; a large, elongate tubercle at base of first finger which is more or less continuous with the larger nuptial pad which bears a minutely granular surface (doubtless horn covered during the breeding season); a more or less trifid palmar tubercle; undersurface of palm with irregular tuberculations; a row of elongate rounded tubercles under forearm.

When the leg is extended, the tibiotarsal articulation reaches the eye; toes two-thirds webbed, the membrane touching the terminal disks on outer side of first and second toes and narrowly failing to reach the disk on the outer surface of third and inner edge of fifth save as a narrow fringe; a large inner metatarsal tubercle; the outer if present not distinguishable from the supernumerary granules or tubercles; a strongly elevated tarsal fold; anal region with small anal flap, the skin behind distinctly fluted; no specialized anal tubercles.

Color.-Above grayish to leaf green, somewhat yellowish cream on ventral surface; in alcohol, grayish, somewhat lighter on sides; dorsal and posterior part of femur stippled with pigment; ventral surfaces immaculate; tympanum colored like surrounding skin.

Measurements in millimeters.-Snout to vent, 25; width of head, 8.2; length of head, 7.1 ; arm, 14; leg, 37; tibia, 12.3; foot, 16.2;

Comparisons.-Probably most closely related to Hylella sumichrasti, but differing in having a vocal sac. The chin is more strongly granular. The under surface of the arm has irregular granules while it is smooth in sumichrasti. The lateral dermal fold, if actually present is much less developed than in sumichrasti. The pads on digits are a little larger, and there is no trace of an elevation, or teeth, on prevomer.

It is more distantly related to Hylella picta, a terrestrial species. It differs from this in having a flat, broad head and a high tarsal fold; in $H$. picta there is no fold and the head is not widened.

There is a similarity in the general form to Hyla smaragdina, a bromelicolus form from the western plateau region. The head of the Hyla is not flattened or widened, and the vocal sac is absent. Vomerine teeth
are wanting or greatly reduced. There is a lateral skin fold. It may be necessary to refer this latter species to Hylella.

Remarks.-The habitat of this species is in bromelias. I strongly suspect that in its entire life history it is largely confined to this type of arboreal habitat. While it is known only from the type locality, I suspect that it will eventually be found to have a rather wide distribution along the southern flanks of the plateau.
In a large series of Hylella sumichrasti from Oxaca I found occasional specimens with an elevation on each prevomer. In two specimens the elevations bore one or two teeth. Presuming that Hylella is a derivative of Hyla it is not altogether surprising that teeth should appear occasionally.


Taylor, Edward Harrison. 1943. "A new Hylella from Mexico." Proceedings of the Biological Society of Washington 56, 49-52.

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