

HOUSTONIA(1)

HARRIS 1895 →

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TEREBRA (HASTULA) HOUSTONIA, Harris, new species.

This species differs from *T. venusta* by its less rectilinear sides, its more inflated whorls, and drawn-out spire of somewhat pupiform appearance, its straight and simple pillar, its more arched longitudinal riblets, which are usually obsolete on the last whorl, and by its feebler spiral striation. Longitude, 29; maximum diameter, 5 mm., in a specimen having ten whorls beside the smooth, small, pointed nucleus of three and one-half whorls.

Types.—No. 6034, U. S. N. M.; Claiborne, Alabama.

The species will be fully described and illustrated by Mr. G. D. Harris in his report on the Texas Tertiary fauna. It is found in the lower bed (Lisbon horizon) at Claiborne Bluff, and also in the Texas Eocene.

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Terebra houstonia nov. sp. Pl. 3, fig. 11, and Pl. 4, fig. 1.

- T. polygyra* Heilp. (*non* Con.), Coll. U. S. Nat. Mus.
- T. vetusta* Heilp. (*non* Lea), Proc. Ac. Nat. Sci. Phila., 1890, p. 398.
- ? *T. vetusta* Gregorio, Mon. Faun. Eoc. de l'Ala., pl. 1, figs. 40, 41.

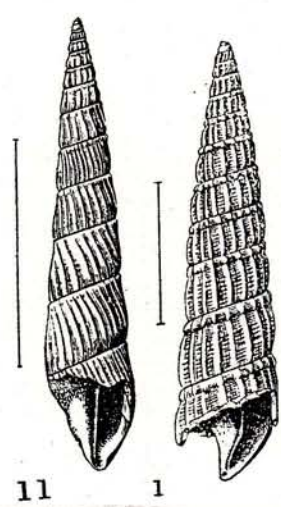
Specific characterization.—Size and general form as indicated in the figure; whorls 12 or 13, longitudinally ribbed, the ribbing being much coarser in the upper part of the shell than in the lower; suture margined below by an obscurely impressed revolving line; columella straight, smooth, tapering rapidly.

This species is characterized at once by the height of its whorls in comparison to their respective diameters, the bulging sides of the whorls, the irregularities of the ribbing, and the straight, smooth columella.

Localities.—Smithville, Bastrop Co.; near McBee's school-house, Cherokee Co.; Little Brazos River, near iron bridge, on Mosley's Ferry road; Cedar Creek, Wheelock League, Robertson Co.; Elm Creek, Lee Co.; near Crockett and 2 miles west of Crockett, Houston Co.; Collard's farm, Sparks' Headright, Brazos Co.; Arnold's Ranch, Frio Co.; southeast of Campbellton, just south of Lipan Creek, Atascosa Co. Also in Claiborne, Webb, and Bienville Parishes, La.; 2 miles east of Newton, Miss.; Claiborne, Ala.; 2 miles west of Orangeburg, S. C.

Geological horizon.—Lower Claiborne Eocene.

Type.—Texas State Museum. Harris 1895 p. 55



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Hastula houstonia (Harris)

Plate 72, figs. 12-14

Terebra houstonia Harris, 1895, Acad. Nat. Sci. Phila., Proc. vol. 47, p. 55, pl. 3, fig. 1, pl. 4, fig. 1; Dall, 1895, U. S. Nat. Mus., Proc. vol. 18, p. 34.

Terebra polygyra Heilprin non Conrad, No. 6034, U. S. Nat. Mus. specimen.

Size and general form as indicated in the figure; whorls 12 or 13, longitudinally ribbed, the ribbing being much coarser in the upper part of the shell than in the lower; suture margined below by an obscurely impressed revolving line; columella straight, smooth, tapering rapidly.

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Geological horizon.—Lower Claiborne Eocene.

Type.—Texas State Museum.—[Harris, 1895].

Nucleus consists of three and a half or four, smooth whorls, flattened at the first. Longitudinal ridges begin on the post-nuclear whorls and continue prominently developed over the upper portion of the shell and over the whole surface of immature shells. On adult shells the longitudinal ribs become obscure but increase in number on the last whorls. Many specimens have a portion of the body whorl smooth. Irregularly, more commonly on the first whorls the upper tips of the longitudinal ribs become finched into a nodose condition. That area becomes margined along the lower line forming an obscure, subsutural band. The condition is not constant. It may be slightly developed on a few whorls or it may occur in such a consistent condition as illustrated by Prof. Harris's second figure.

The author has had access to a large suite of specimens from the original Harris collection, loaned by the University of Texas. Such a series reveals the sequence of development and shows that the specimens with and without the sutural band belong to the same species.

This species is closely related to *H. venusta* (Lea). The longitudinal folds are finer in *H. venusta*. The subsutural band is stronger and more frequently developed in *houstonia*. Commonly in *houstonia* the tips of the longitudinal ribs are nodose above the subsutural band.

T. mirula (Texayra) on first examination might be confused with *houstonia*. The differentiation of the two species may be made best on the character of the columella. The columella in *H. houstonia* is straight and the line continuing straight with the short canal while in *mirula* the line of the columella is curved and swings to the left with the short, curved canal. Dall placed the *mitis* and *inula* of De Gregorio under *houstonia*. From the illustrations of De Gregorio's species, the character of the columella and canal does not verify such determination.

This species in its transitional phases is not typical *Hastula* as described by authors but it is a much more interesting form than if it conformed to type. The initial development of the nodose, subsutural band probably shows the relationship of the *Hastula* type to that with the well-developed band.

If the *T. strigilata* of Linnaeus is not the same as that of Lamarck as pointed out by Woodring⁶⁰⁸ then the designation of type of *Hastula* was not made until that of Woodring. Cossmann's⁶⁰ designation of *T. strigilata* Lam. is not the species included in the original description by the Adamsons. Linnaeus species was given by them.

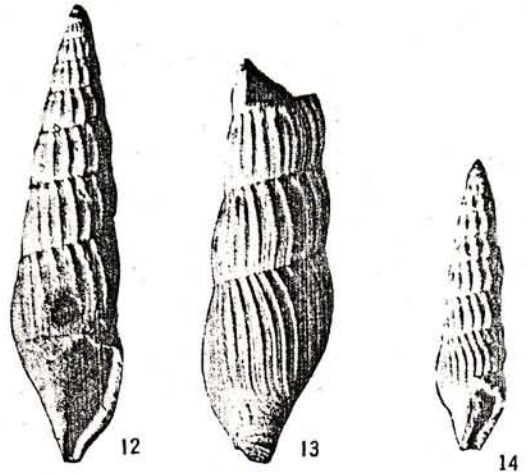
Since there is uncertainty what true *Hastula* is, one hesitates to differentiate a type like *houstonia* into a new subgroup because of characters which do not seem to be typical.

The specimens No. 6034, listed as "cotypes", *T. houstonia* Harris, in Cat. U. S. Nat. Mus. types⁶⁷⁰ are not the cotypes. They are the specimens referred to in synonymy under *T. polygyra* Heilprin.

Dimensions.—Height, 19 mm.; greatest diameter, 4 mm. (immature specimen).

Holotype.—Geology Department, University of Texas, Austin Texas.

Occurrence.—Lower Claiborne: localities 707, 723, 725, 727 733, 741, 743, 747 and 766; lower bed, Lisbon horizon, Claiborne Bluff, Claiborne, Ala. (Dall). PALMER 1937 Bull. U.S. Geol. Surv. vol. 7 (32) p. 471



12. *Hastula houstonia* (Harris) No. 3342, P. R. I. H., 14 mm.; g. d., 4 mm. Lower Claiborne: loc. 741
 13. *Hastula houstonia* (Harris) No. 3343, P. R. I. H., 15 mm.; g. d., 15 mm. Lower Claiborne: loc. 741
 14. *Hastula houstonia* (Harris) No. 3344, P. R. I. H., 17 mm.; g. d., 2 mm. Young Lower Claiborne: loc. 741