

CRUSTACEA FROM THE EOCENE AND *RANINELLA* FROM THE CRETACEOUS

PLATE 14—CRUSTACEA FROM THE EOCENE AND *Raninella* FROM THE CRETACEOUS

FIGURES 1-6.—*Ischnodactylus cookei* Rathbun, n.sp. [See page 63.]

1-4.—Upper ( $\times 2.89$ ) and outer ( $\times 1.44$ ) views of right manus and fixed finger of holotype, and outer and lower views ( $\times 2.16$ ) of right manus and fixed finger of paratype, Cat. No. 371512; from Sucarnoochee beds, Midway, in Prairie Creek region, Wilcox County, Alabama. 5, 6.—Prehensile and opposite views of fragment of finger,  $\times 3.61$ ; Alabama Museum of Natural History; from Sucarnoochee beds, at Estelle, Wilcox County, Alabama.

FIGURES 7-12.—*Ischnodactylus cultellus* Rathbun, n.sp. [See page 64.]

7-9.—Upper, lower, and outer views of dactylus of left cheliped, holotype,  $\times 2.16$ ; Alabama Museum of Natural History; from Sucarnoochee beds at Estelle, Wilcox County, Alabama. 10-12.—Lower, upper, and outer views of right propodal finger,  $\times 2.16$ ; Johns Hopkins University; from Dry Creek, Jackson, Hinds County, Mississippi (horizon not given).

FIGURES 13-18.—*Paguristes johnsoni* Rathbun, n.sp. Lower, upper, distal, and outer views of right major palm, holotype,  $\times 1.44$ , Cat. No. 371705, and upper and outer views of left minor chela,  $\times 2.16$ , Cat. No. 371706; from Sucarnoochee beds, Prairie Creek and Pine Barren section, Wilcox County, Alabama. [See page 78.]

FIGURES 19-22.—*Ischnodactylus* (?) *dentatus* Rathbun, n.sp. Lower, outer, and inner views of right propodal finger, holotype,  $\times 3.61$ , and inner view of same finger of paratype,  $\times 3.61$ ; Johns Hopkins University; from lower Eocene at Dry Creek, Jackson, Hinds County, Mississippi. [See page 65.]

FIGURES 23, 24.—*Ischnodactylus* (?) sp. Outer and distal views of right manus (incomplete),  $\times 2.89$ , Cat. No. 371514; from Sucarnoochee beds, Prairie Creek, Wilcox County, Alabama. [See page 66.]

FIGURES 25-31.—*Hoploparia johnsoni* Rathbun, n.sp. Outer view of left palm, for surface,  $\times 1.44$ , Cat. No. 371520; inner view of basal portion of dactylus of right cheliped, showing tubercles,  $\times 2.89$ ; Cat. No. 371520; left profile of smaller carapace and abdomen, showing pleura,  $\times 1.44$ , Cat. No. 371518; left profile of larger carapace and abdomen, holotype,  $\times 1.08$ , Cat. No. 371518; outer view of right propodal finger,  $\times 1.44$ , Cat. No. 371520; outer view of right palm with finger,  $\times 1.08$ , Cat. No. 371520; inner view of largest palm (right),  $\times 1.08$ , Cat. No. 371520; from Sucarnoochee beds, at Prairie Creek and Pine Barren section, Wilcox County, Alabama. [See page 61.]

FIGURES 32, 33.—*Raninella mucronata* Rathbun, n.sp. Dorsal and ventral views of holotype,  $\times 4.33$ ; W. S. Adkins (284), University of Texas; Denton clay, at Blue Mound near Haslet, Tarrant County, Texas. [See page 50.]

## PLATE 15—CRUSTACEA FROM THE EOCENE

FIGURES 1-3, 5, 6.—*Callianassa ulrichi* C. A. White. [See page 71.]

1-3.—Inner and outer views of left chela,  $\times 1.44$ , and outer view of right propodus (incomplete) and fixed finger,  $\times 2.16$ , Cat. No. 8910; from Clayton limestone, at Johnson's Well, top of Capitol Hill, corner of Battery and 9th streets, station 2218, Hayden Survey, Little Rock, Pulaski County, Arkansas. 5-6.—Outer views of right and left movable fingers,  $\times 2.16$ , Cat. No. 8910 (See above, figs. 1-3).

FIGURE 4. *Callianassa ulrichi claibornensis* Rathbun, n.subsp. Outer view of left propodal finger,  $\times 2.16$ , Cat. No. 371588; of Claiborne age; from east bank of Chickasawhay River about half a mile below Enterprise, Clarke County, Mississippi. [See page 72.]

FIGURES 7-10.—*Callianassa alabamensis* Rathbun, n.sp. Distal and outer views of right chela, holotype,  $\times 1.08$ , and outer and upper views of dactylus of right cheliped, paratype,  $\times 1.44$ , Cat. No. 371505; from Sucarnoochee beds, at Prairie Creek, Wilcox County, Alabama. [See page 70.]

FIGURES 11-14.—*Callianassa beta* Rathbun, n.sp. Inner, outer, upper, and distal views, of left manus,  $\times 2.16$ , Cat. No. 371507; Sucarnoochee beds, Pine Barren section, Wilcox County, Alabama. [See page 68.]

FIGURES 15-18.—*Callianassa epsilon* Rathbun, n.sp. Upper, outer, inner, and distal views of left manus,  $\times 2.16$ , Cat. No. 371510; Sucarnoochee beds, Prairie Creek region, Wilcox County, Alabama. [See page 69.]

FIGURES 19-22.—*Callianassa delta* Rathbun, n.sp. Inner, outer, upper, and distal views of right manus and piece of finger,  $\times 1.44$ , Cat. No. 371509; Sucarnoochee beds, Prairie Creek, Wilcox County, Alabama. [See page 69.]

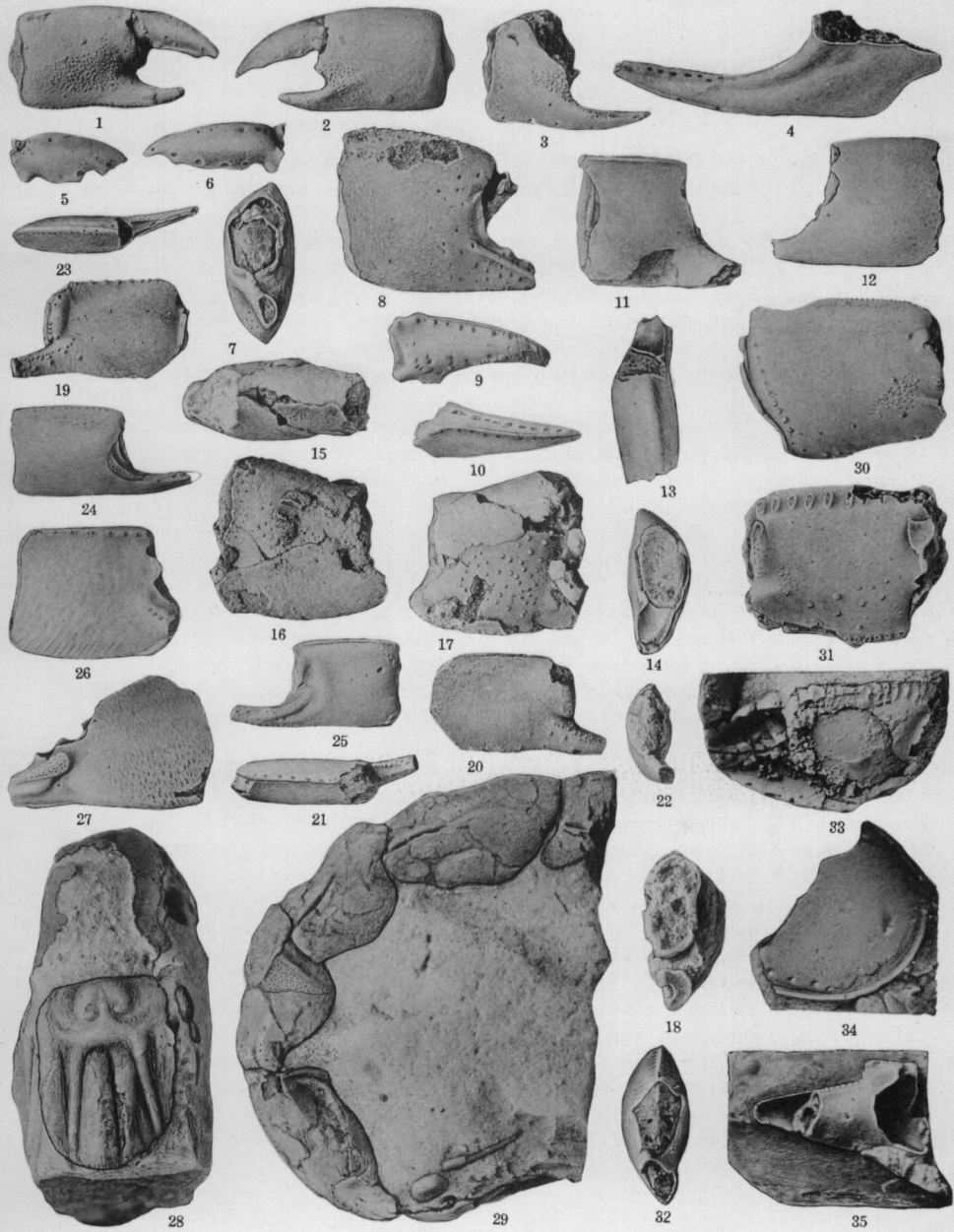
FIGURES 23-25, 27.—*Callianassa alpha* Rathbun, n.sp. [See page 67.]

23-25.—Upper, outer, and inner views of propodus of right cheliped, holotype,  $\times 2.16$ , Cat. No. 371506; Sucarnoochee beds, Prairie Creek, Wilcox County, Alabama. 27.—Outer view of broken palm and finger, showing characteristic excrescence at base of finger,  $\times 2.89$ , Cat. No. 371506 (See above, figs. 23-25).

FIGURES 26, 28, 29.—*Callianassa alpha* Rathbun, n. var. [See page 67.]

26.—Inner view of left palm,  $\times 2.16$ , Cat. No. 371572; Jackson formation, in large ravine below old reservoir at Yazoo City, about one mile south of Y. and M. V. R. R. station along street-car line, Yazoo County, Mississippi. 28-29.—Dorsal view of telson and right profile of abdomen showing punctae on middle segments,  $\times 2.16$ , Cat. No. 371573 (See above, with 371572).

FIGURES 30-35.—*Callianassa hulli* Rathbun, n.sp. Outer, inner, and distal views of right manus, holotype,  $\times 3.61$ ; inner view of right chela embedded in nodule,  $\times 3.61$ ; outer view of lower part of wrist,  $\times 7.2$ ; and inner view of immovable finger embedded,  $\times 7.2$ , Cat. No. 371576; from the Midway, at Buzzard Bluff, Miller County, Sec. 16, T. 14 S., R. 26 W., Arkansas. [See page 72.]



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