## Cambarus veteranus Faxon Big Sandy Crayfish

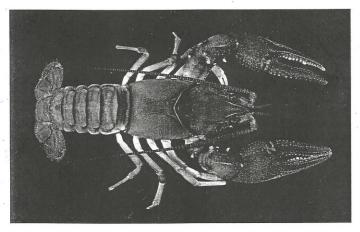


Fig. 95

LIFE COLORS – (Fig. 95) Carapace, chelae, and abdomen uniform dark green to brown. Rostral margins and large tubercles on chelae bright orange to deep red. Legs and venter somewhat lighter, cream to whitish in color.

CHARACTERS – (Fig. 96) Rostrum moderately excavated, narrow; margins moderately thickened, greatly converging and slightly rounded at base of acumen. Acumen triangular with corneous tubercle at tip. In dorsal view, carapace very wide at branchiostegals, narrows somewhat anteriorly to head; in lateral view dorsoventrally flattened. Areola very wide, usually 3.7 to 5.6 times longer than wide at its narrowest point, room for 8 to 10 punctations. Postorbital ridge flattened, with a tubercle and well-developed corneous spine at tip. Hepatic area with moderately dense covering of large round tubercles; branchiostegals laterally covered with small round tubercles; cervical spines well developed; branchiostegal spines well developed; suborbital angle absent. Antennal scale greatest width distal to midpoint. Chelae triangular in outline, with long fingers. Dorsal surfaces of fingers of chelae without strong longitudinal ridges. Mesial margin of palm of chela with two rows of moderately large, rounded tubercles; mesialmost row with 9 to 10 tubercles; second row with 8 to 10 smaller tubercles. No subpalmar tubercles. Epistomal zygoma strongly arched.

Central projection of gonopod of form I male corneous, recurved 90° to 105° to shaft, with

strong subapical notch. Mesial process bulbous at base and apically ends in one or two points. Annulus ventralis of female subrhomboidal, asymmetrical to symmetrical in outline with median trough through cephalic half, and a deep C-shaped fossa and S-shaped sinus.

MAXIMUM SIZE – The maximum known size for the species is 96.4 mm total length.

MOST LIKE – *C. veteranus* is most likely to be confused with *C. robustus* since both are large crayfish with elongated chelae and deep dorsoventral depressions at the base of the propodus. However, it can be separated from *C. robustus* by possessing a narrow triangular rostrum and by lacking a suborbital angle.

DISTRIBUTION AND HABITAT – (Fig. 97) Cambarus veteranus has a relatively limited distribution. It is known from the upper Guyandotte and Bluestone rivers within the New River drainage in West Virginia and the Big Sandy River drainage in Virginia and Kentucky (Hobbs 1989; Jezerinac et al. 1995). In Kentucky it is known only from the upper portions of the Big Sandy River drainage in Floyd and Pike counties. A single collection from the Red River in Estill Co. (Kentucky River drainage) from August 1967 is in the EKU Crayfish Collection. Subsequent collections in the area have been fruitless; therefore, we consider it to be a dubius record.

Cambarus veteranus is most commonly found under very large flat boulders in both riffles and pools of medium-sized creeks and rivers.

LIFE HISTORY – We have collected form I males in July in Kentucky and Jezerinac et al. (1995) reported them in West Virginia during April, July, and August. No ovigerous females have ever been collected, nor has copulation been observed (Jezerinac et al. 1995). Nothing else is known about its life history.

Jezerinac et al. (1995) suggested that the limited distribution of the species may be due in part to coal mining in the areas from which it is known. They also suggested that it may not be able to compete well with *Cambarus sciotensis*, which is more common and widespread in the same drainages from which *C. veteranus* is known.

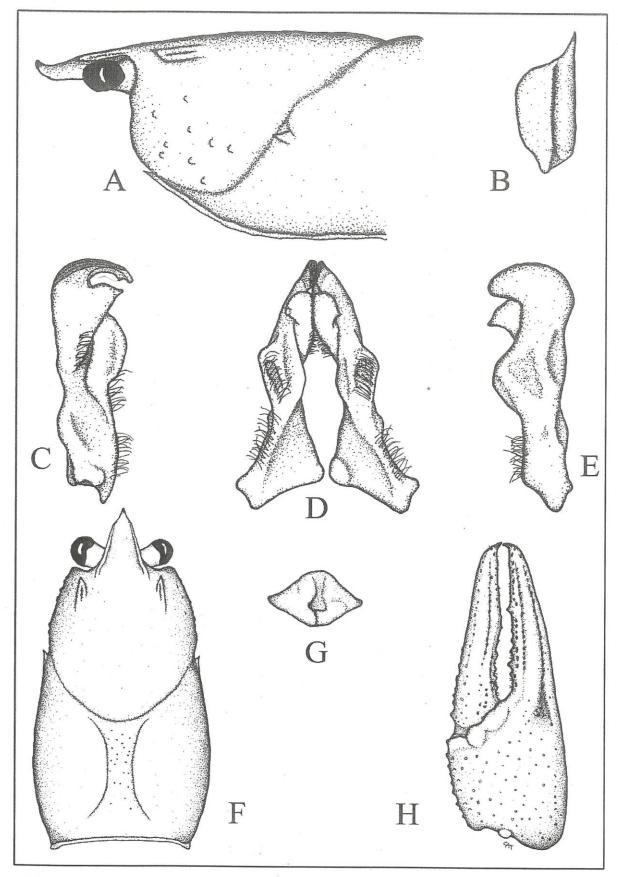


Fig. 96. *Cambarus veteranus*: A, lateral view of carapace; B, dorsal view of right antennal scale; C, mesial view of form I gonopod; D, ventral view of form I gonopods; E, lateral view of form II gonopod; F, dorsal view of carapace; G, ventral view of annulus ventralis; H, dorsal view of right chela.

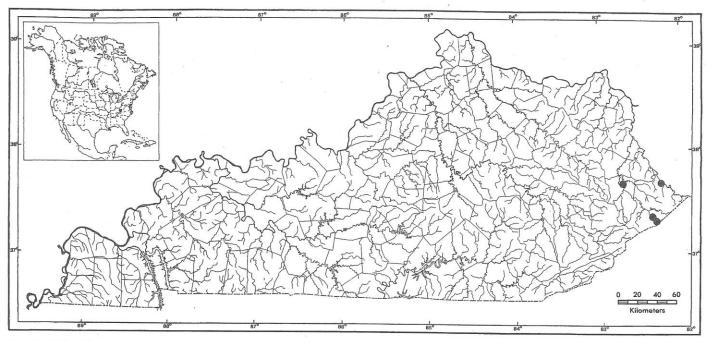


Fig. 97. Distribution of Cambarus veteranus in Kentucky.

CRAYFISH ASSOCIATES – *Cambarus veteranus* has been collected with the following species: *C. bartonii cavatus*, *C. sciotensis*, *C. robustus*, and *Orconectes cristavarius*.

CONSERVATION STATUS – AFS Threatened, KSNPC Special Concern.

## Cambarus sp. A Paintedhand Mudbug

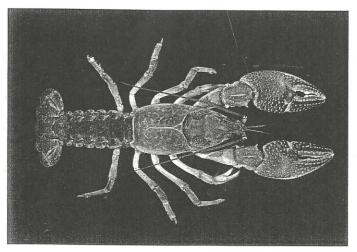


Fig. 98

LIFE COLORS – (Fig. 98) Overall base color olive green to tan brown. Carapace, chelae, and abdomen with same base color. Conspicuous darker, round vermiculations on carapace at mandibular muscles. Rostral margins, large tubercles on chelae, posterior margins of all abdominal seg-

ments, telson, and uropods all trimmed in bright red to burgundy. Legs cream color, with joints highlighted in red. Venter cream to whitish.

CHARACTERS – (Fig. 99) Rostrum deeply excavated, more so distally; broad at base, gradually narrowing distally; margins slightly concave and thickened up to acumen; acumen short and triangular, small tubercle at tip. Carapace in dorsal view bullet shaped, entire carapace laterally compressed, gradually narrows anteriorly; in lateral view both sections of carapace broadly rounded. Areola obliterated. Postorbital ridge very low, no tubercle or spine at tip. Hepatic area sparsely covered with small tubercles, branchiostegals without tubercles, but surface rugose; cervical spines and branchiostegal spines absent; suborbital angle acute, but no tubercle or spine on end. Antennal scale greatest width distal to midpoint. Chelae subtriangular in outline; dactyl with broad notch at base, when fingers closed with large round opening at base. Dorsal surfaces of fingers of chelae with weakly developed longitudinal ridges; sometimes well devel-