

Figure 1 -Cyclus americanus Packard. 1,2, Part and counterpart of the holotype, USNMP 38863, $\times 4.3$. 3, Note carapace shield showing anterior lobe bearing antennules and antennae, posterior median notch, broad marginal shelf, median posterior ridge, lateral and posterior course papillation, PE 22462, $\times 5.4$, Displaying trunk limbs impressed from below the carapace, antennules, geniculate maxillae, and caudal rami, PE 31712, $\times 3 . \mathrm{a} 1=$ antennule, $\mathrm{c}=$ carapace, $\mathrm{g}=$ gut, $\mathrm{mr}=$ medial ridge, $\mathrm{ms}=$ marginal shelf, $\mathrm{mx} 2=$ maxilla, $\mathrm{p}=$ papillae, $\mathrm{pn}=$ posterior notch, $\mathrm{r}=$ rostral lobe, $\mathrm{s}=$ sternites.

Trümpy (1957) promptly took up this definition when he erected a species from the Muschelkalk, Halicyne ornata. Trümpy also pointed out the great variation in shape within the genus Cyclus and called attention to the difference between the flattened species as opposed to highly vaulted taxa, suggesting that separate generic names might eventually be necessary to distinguish these two morphotypes. Thus Trümpy recognized as distinct the third cycloid morphotype introduced by Packard in 1885 when he described C. americanus.

Kramarenko (1961) extended the geographic range for Cyclus when he described C. milaradovitchi from Lower Permian rocks of the southern Urals.

Goldring (1967) introduced a new Cyclus species from Upper Viséan strata of England, C. martinensis. He determined that coral thickets formed probably the natural habitat of this species.

Meanwhile, Gall (Gall and Grauvogel, 1967; Gall, 1971) found Halicyne ornata in the Buntsandstein (some specimens originally alluded to in Bill, 1914), a classic konservat lagerstatt. This material occurred in greater abundance and with better preservation than that which Trümpy found in the Muschelkalk. Although the wealth of information available from the Buntsandstein specimens allowed a detailed reconstruction of $H$. ornata, Gall could say nothing about the higher level relationships of these cycloids other than "Crustacés aux affinités in-

