

MAJOR GROUPINGS OF TARDIGRADA AT A GLANCE

	Anthuridea	Asellota	Epicaridea	"Flabellifera"	Gnathiidea	Oniscidea	Phreatoicoidea	Valvifera	Microcerberidae
Body Form & Locomotion	Elongate and slender* Swimming dimorphic	Flattened to variable Ambulatory	Distorted* to sac-like* degenerate	Flattened to enrollable good swimmers	Sexual dimorphism & metamorphosis	Flattened, often enrollable ambulatory only	Amphipod-like* Good swimmers	Flattened to caprellid-like some good swimmers	Elongate and slender* Ambulatory
Cephalon All peduncle:	5 segments Mouthparts suctorial in some	eyes often absent 6 segments, scale* on seg.3 Mouthparts normal	3 segs. in male Mouthparts suctorial when present	5(6?) segments Mouthparts normal or suctorial. Mnd molar reduced or modified	4 segments Juv. mouthparts suctorial. Adults degenerate	AI tiny*, 3 segs. 4-5 segments M.parts normal Mxp palp distally reduced	5 segments Mouthparts normal	5 segments M.parts normal Mnd palp often absent Mxp palp reduced	Eyes absent 5-6 segments Mnd w/o palp
Pereon	T2-4 pereopods Subchelate*	Coxae small, unfused w/o epimeral plates anter./poster. Th.s may be fused	larval forms cf. flabelliferans* Adult Ths prehensile (hook-like), if pres.	Coxae epimeral and often fused to pereon	T2 fused to ceph*; T8 missing* only 5 free Th.s (adult manca)*	Coxae epimeral, fused to pereon	Coxae w/o epimeres T2-5 directed anter. T6-8 posterior T Bases 6-8 expanded	Coxae usually w. epimeres & fused to pereon	Coxae small, w/o epimeres Pers. rotated dorsally*
Pleon	Pl.1-2 normal Pl.1 sometimes opercular Urs. sometimes block openings	Urs. styliform Pls. I-II modified & opercular Pls.3-5, telson fused into single unit Pls. III-V branchial	All Pleopods branchial if pres. Pls. I-V for swimming in juveniles Urs. various	Pleonites free or fused Uropods sometimes form tail-fan	Pleonites all free. Urs. flat & biram. (but no tail-fan)	Pleonites rarely fused. Pleopods air breathing. Uropods styliform	Pleonites free Pls. I-V subseq. for resp. & swimming Uropods styliform	Pleonites fused variously to telson Uropods form operculum over pleopods	Pls.1-2 large Pl.3-5 & telson fused. Pleopods reduced or absent
Body Length	5-47mm	1-20mm	0.5-10mm	1-350mm	2-17mm	1-50mm	5-45mm	5-130mm	0.5-1.5mm
Fossil Record	Recent	Recent	Upper-Jurassic	Triassic	Recent	Eocene	Upper Carboniferous	Oligocene	Recent
Habitat	Marine Estuarine and fresh water	Marine, fresh water (incl. caves), rarely brackish	Marine & Estuarine	Marine, Fresh water, Some cavernicolous (Hot springs!)	Fish parasites as juveniles benthic & cryptic as adults	Terrestrial*, Amphibious, & fresh water	Fresh water (surface & ground) Relict Gondwanaland distribution*	Marine benthic	Interstitial*: marine & FW beaches & ground waters
Feeding	Carnivorous	Omnivorous Detritivorous	Ecto/endoparasites on Crustacea*	Carniv., fish parasites to Omniv.	Ectoparasites Adults non-feed.	Detritivorous Herbivorous	Detritivorous	Herbivorous & Omnivorous	Detritivorous
Num. Families	3	29	4	16	1	35	3	7	1

[* = Useful Diagnostic Feature]

