

Diagnostic Features of Millipede Orders: body shape, length, paranota

Order	body-shape	dorsal groove	paranota	rings	body length
Callipodida	round, with longitudinal ridges	present	never	>30	up to 100mm
Chordeumatida	short, body tapering to end, long legs	present	with or without	26-32, most with 30	4 - 25mm
Glomerida	short, flat	absent	never	12 (may look like 11)	2.5 - 20mm
Glomeridesmida	flat	absent	never	22	
Julida	snake-like	absent	never	>30	10 – 120mm
Polyxenida	unique through the tufts of setae	absent	never		up to 4mm
Platydesmida	Flat	present	always	>30, up to 110	up to 60mm
Polydesmida	in dorsal view forms without paranota resemble meal-worm larvae	absent	with or without	19-21, most with 20	3 – 130mm
Polyzoniida	leech-shaped; back domed or arched, belly-side flat	absent	never	>30	
Siphoniulida	nematode-like	absent	never	>30	less than 7mm
Siphonocryptida	flat	present	never	>30	up to 10mm
Siphonophorida	long, worm-like and thin	absent	never	>30, up to 192	up to 36mm
Sphaerotheriida	large, flat; tank-like	absent	never	13	up to 95mm and 50mm wide
Spirobolida	snake-like	absent	never	>30	up to 200mm
Spirostreptida	snake-like	mainly absent, except in some Cambalidea	never	>30, up to 90	6 - 300mm
Stemmiulida	laterally compressed, higher than wide	present	?	>30	up to 50mm

Diagnostic features of millipede orders: head, eyes, other

Order	Head	Eyes/ocelli	diagnostic features	body end/other title?	Modified anterior legs in males	Telopods/ Gonopods
Callipodida	large, round	mostly present	longitudinal ridges in most species	spinnerets		L8, L9 reduced
Chordeumatida	large, round	mostly present	3+3 setal pattern on tergites; collum segment often slender, giving the appearance of a 'neck'	spinnerets		L8 and L9, L10 reduced in size in Chordeumatidea and Heterochordeumatidea
Glomerida	large, round	few ocelli in a row or blind	2nd tergite large; long, slender antennae, articles 3 and 6 the longest.			2 pairs telopods
Glomeridesmida	large, round	absent	'cerci' at body end, females with large ovipositors			1 pair telopods
Julida	large, round	present	in fresh specimens often with fringe of setae around the posterior end of the body rings		1 st hook-like	L8 & L9
Polyxenida	large, round	1-3 small ocelli	distinct setal tufts			neither
Platydesmida	small, triangular	absent	long horizontal paranota			L9&L10; leg-like
Polydesmida	large, round	blind	rings lack any signs of sutures			L8; L9 normal walking leg
Polyzoniida	small, cone-shaped	few ocelli	collum enlarged, gnathochilarium undivided			L9&L10; leg-like
Siphoniulida	small, beak	absent	collum enlarged	spinnerets		L8; L9 normal walking leg
Siphonocryptida	small,	few small				L9&L10; leg-like

	beak	ocelli, clearly visible				
Siphonophorida	small, long beak	absent	worm-like appearance			L9&L10; leg-like
Sphaerotheriida	large, round	large, kidney- shaped eyes with many ocelli	2nd tergite large, 13 th ring large antennae short, thick; often with numerous sense cones			2 pairs telopods
Spirobolida	large, round	mostly present	labrum with suture			L8 &L9
Spirostreptida	large, round	mostly present				L8 &L9
Stemmiulida	large, round	2 large ocelli	some can jump	spinnerets		L8; L9 reduced