

Comparative Morphological Data of 5 Dugesiid Species from Japan (2 Native and 3 Exotic Species)

Species & External Characters	<i>Dugesia japonica</i>	<i>Dugesia ryukyensis</i>	<i>Dugesia austroasiatica</i>	<i>Girardia tigrina</i>	<i>Girardia dorocephala</i>
Size (mm)	10-20mm long; 2-4mm wide	10-15mm long; 1.5-2mm wide	10-12mm long; 1-1.5mm wide	8-10mm long; 1-1.5mm wide	12-18mm long; 1.5-2.5mm wide
Coloration of the dorsal side	Yellowish brown to dark brown; with pigment patterns in some cases	Light brown to grayish brown; with blackish brown pigments	Pale brown with numerous small, whitish spots	Pale grayish brown with numerous, small, blackish-brown pigment granules	Uniform & moderate brown coloration
Form	Obtuse-angled triangular form	Obtuse-angled triangular form	Subtriangular form	Equilateral triangular form	Broad, equilateral triangular form
Auricles	Bluntly pointed; sometimes protruded when the animal moved quickly	Bluntly pointed (slightly rounded than the auricles of <i>D. japonica</i>)	Bluntly pointed (slightly rounded)	Broad but short	Conspicuous, long & pointed
Sensory organs	Narrow willow-leaf shape	Narrow willow-leaf shape	Narrow willow-leaf shape	Ob lanceolate & conspicuous	Lanceolate & conspicuous
Two eyes & pigment-free ocular areas	Eyes located separately; pigment-free ocular areas moderate. Supernumerary eyes may occur.	Eyes located separately; pigment-free ocular areas moderate. Supernumerary eyes may occur.	Eyes located separately; pigment-free ocular areas moderate	Two adjacent eyes; pigment-free ocular areas wide & conspicuous	Eyes located at the slightly anterior level of auricles; pigment-free ocular areas conspicuous
PHARYNX	Non-pigmented	Non-pigmented	Non-pigmented	Pigmented	Pigmented
CHROMOSOMES & KARYOTYPES	2x=16: 2m + 2m + 2m + 2sm + 2m + 2m + 2m + 2m	2x=14: 2m + 2m + 2m + 2m + 2m + 2m + 2m + 2m	2x=16: 2m + 2m + 2m + 2m + 2sm + 2st + 2m + 2m + 2m	2x=16: 2m + 2m + 2m + 2m + 2sm + 2m + 2m + 2m	2x=16: 2m + 2m + 2m + 2sm + 2sm + 2sm + 2m
Remarks	Triploidic & mixoploidic karyotypes are common.	Triploidic & mixoploidic karyotypes are common.		No sexual specimens were found in Japan.	

●: Exotic Species.

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