

Species	n	Conjugation	Type	head shape	mean length (SE)	Long sperm?	Dimorphism ?	Short morph mean length (SE)	Source
Acilius fraternus	1	Y	paired	broad	0.240	N	N		this study
Acilius mediatius	5	Y	paired	broad	0.177 (0.003)	N	N		this study
Acilius semisulcatus	5	Y	paired	broad	0.243 (0.005)	N	N		this study
									Werner 1976, Jamieson et al 1999, Ballowitz 1895
Acilius sulcatus	1	Y	paired	broad	0.360	N	N		this study
Acilius sylvanus	5	Y	paired	broad	0.253 (0.004)	N	N		this study
Agabetes acuductus	4	Y	aggregate?	broad	1.874 (0.064)	Y	Y	0.601 (0.007)	this study
Agabus ambiguus	5	Y	aggregate	broad	1.086 (0.013)	Y	N		this study
Agabus anthracinus	1	Y	aggregate	elongate	0.397	N	N		this study
Agabus bifarius	2	Y	aggregate	elongate	0.669 (0.007)	Y	N		this study
Agabus disintegratus	2	Y	aggregate	broad	1.315*	Y	N		this study
Agabus griseipennis	2	Y	aggregate	elongate			N		this study
Agabus strigulosus	4	Y	aggregate	elongate	0.296*	N	N		this study
Allodessus bistrigatus	2	Y	rouleaux	broad	1.180*	Y	N		this study
Amphizoa insolens	1	N		elongate	0.7838	Y	Y	0.386	this study
Amphizoa lecontei	2	N		elongate	1.196 (0.022)	Y	Y	0.356 (0.004)	this study
Anodocheilus maculatus	6	Y	rouleaux	broad	0.705	Y	N		this study
Antiporus blakeii	4	Y	rouleaux	broad	0.621*	Y	N		this study
Batrachomatus daemeli	1	Y	aggregate	elongate	0.358	N	N		this study
Unknown Bidessini	1	Y	rouleaux	broad	0.751	Y	N		this study
Bidessonotus inconspicuus	5	Y	rouleaux	elongate	1.629	Y	N		this study
Bidessonotus obtusatus	2	Y	rouleaux	elongate			N		this study
Celina hubbelli	4	Y	rouleaux	broad	3.581*	Y	N		this study
Celina sp.	1	Y	rouleaux	broad	4.067*	Y	N		this study
Chostonectes gigas	3	Y	rouleaux	elongate	1.328 (0.016)	Y	N		this study
Chostonectes nebulosus	1	Y	rouleaux	elongate	0.128*	N	N		this study
Clypeodytes sp.	1	?		elongate	0.402*	N	N		this study
Colymbetes exeratus	2	Y	aggregate	elongate	0.374 (0.006)	N	N		this study
									Dallai and Afzelius 1987, Mackie & Walker 1974
Colymbetes fuscus	1	Y	aggregate	elongate	0.530	Y	N		this study
Colymbetes sculptilis	2	Y	aggregate	elongate	0.298 (0.002)	N	N		this study

<i>Colymbetes strigatus</i>	1	Y	aggregate	elongate			N	Ballowitz 1895
<i>Copelatus glyphicus</i>	5	N		elongate	0.722 (0.010)	Y	N	this study
<i>Coptotomus longulus lenticus</i>	5	N		elongate	1.538 (0.054)	Y	Y	0.575 (0.005) this study
<i>Cybister lateralimarginalis</i>	1	?					Y	Voinov 1902
<i>Cybister tripunctatus</i>	1	?			0.920*	Y	?	this study
<i>Deronectes</i> sp.	3	Y	rouleaux	elongate			N	this study
<i>Derovatellus peruanus</i>	2	Y	rouleaux	broad	0.226*	N	Y	0.214* this study
<i>Desmopachria convexa</i>	6	N		elongate	1.517 (0.026)	Y	N	this study
<i>Desmopachria portmanni</i>	3	N		elongate	0.967*	Y	N	this study
<i>Dytiscus circumcinctus</i>	1	Y	paired	elongate			N	Ballowitz 1895
<i>Dytiscus dimidiatus</i>	1	Y	paired	elongate			N	Ballowitz 1895
<i>Dytiscus hybridus</i>	1	Y	paired	elongate	0.9778	Y	N	this study
<i>Dytiscus latissimus</i>	1	Y	paired	elongate			N	Ballowitz 1895
<i>Dytiscus marginalis</i>	2	Y	paired	elongate	0.940 - 0.950	Y	N	Dallai & Afzelius 1987, Mackie and Walker 1974, Werner 1976
<i>Dytiscus verticalis</i>	5	Y	paired	elongate	0.945 (0.040)	Y	N	this study
<i>Eretes sticticus</i>	2	Y	paired	broad	0.282 (0.001)	N	N	this study
<i>Graphoderus cinereus</i>	1	Y	paired	broad			N	Ballowitz 1895, Dallai & Afzelius 1987
<i>Graphoderus fascicollis</i>	5	Y	paired	broad	0.200 (0.002)	N	N	this study
<i>Graphoderus liberus</i>	5	Y	paired	broad	0.200 (0.002)	N	N	this study
<i>Graphoderus perplexus</i>	5	Y	paired	broad	0.244 (0.004)	N	N	this study
<i>Graphoderus zonatus</i>	1	Y	paired	broad			N	Ballowitz 1895
<i>Graptodytes</i> sp.	1	Y	rouleaux	elongate			N	this study
<i>Heterhydrus</i> sp.	1	Y	rouleaux?	broad			Y	this study
<i>Heterosternuta pulcher</i>	5	Y	rouleaux	broad	1.284 (0.028)	Y	N	this study
<i>Hydaticus aruspex</i>	1	Y	paired	broad	0.234	N	N	this study
<i>Hydaticus bimarginatus</i>	4	Y	paired	broad	0.300 (0.005)	N	N	this study
<i>Hydaticus continentalis</i>	1	Y	paired	broad			N	Ballowitz 1895
<i>Hydaticus dorsiger</i>	2	Y	paired	broad	0.060 (0.001)	N	N	this study
<i>Hydaticus seminiger</i>	1	Y	paired	broad			N	Dallai and Afzelius 1985
<i>Hydaticus transversalis</i>	1	Y	paired	broad	0.290	N	N	Werner 1976, Werner et al 1972
<i>Hydrocolus paugus</i>	2	Y	rouleaux	broad	1.5663 (0.008)	Y	N	this study
<i>Hydrocolus stagnalis</i>	5	Y	rouleaux	broad	1.768*	Y	N	this study
<i>Hydrodessus</i> sp.	1	?		broad	0.342*	N	N	this study
<i>Hydroglyphus flammulatus</i>	3	Y	rouleaux	broad	0.815*	Y	N	this study

Hydroporus sp.	3	Y	rouleaux	broad	0.560 (0.015)	Y	N		this study
Hydroporus sp.	5	Y	rouleaux	broad	0.448 (0.014)	N	N		this study
Hydrovatus pustulatus	9	Y	rouleaux	broad	4.493*	Y	N		this study
Hygrobia hermanni	1	Y	rouleaux	broad	1.525*	Y	N		this study
Hygrotus dissimilis	1	Y	aggregate	elongate	1.198	Y	Y	0.1492	this study
Hygrotus diversipes	1	Y	aggregate	elongate	1.564	Y	Y	0.1686	this study
Hygrotus impressopunctatus	5	Y	aggregate	elongate	0.241 (0.011)	N	Y	0.162 (0.008)	this study
Hygrotus infuscatus	1	Y	aggregate	elongate	0.974	Y	Y	0.2274	this study
Hygrotus lutescens	1	Y	aggregate	elongate	1.692	Y	Y	0.2028	this study
Hygrotus marklini	2	Y	aggregate	elongate	1.328 (0.038)	Y	Y	0.164 (0.002)	this study
Hygrotus masculinus	1	Y	aggregate	elongate	1.098	Y	Y	0.2616	this study
Hygrotus picatus	8	Y	aggregate	elongate	0.377 (0.009)	N	Y	0.176 (0.008)	this study
Hygrotus sayi	5	Y	rouleaux	broad	0.531 (0.006)	Y	Y	0.439 (0.029)	this study
Hygrotus semivittatus	1	Y	aggregate	elongate	2.334	Y	Y	0.242 (0.002)	this study
Hygrotus tumidiventris	4	Y	aggregate	elongate	1.427 (0.035)	Y	Y	0.194 (0.006)	this study
Hyphydrus aubei	4	Y	rouleaux	broad			N		this study
Hyphydrus elegans	8	Y	rouleaux	broad	0.180	N	N		this study
Ilybiosoma cordatum	1	y	aggregate	broad	0.212*	N	N		this study
Ilybiosoma seriatum	7	Y	aggregate	broad	0.398 (0.005)	N	N		this study
Ilybius gagates	1	Y	aggregate	broad	0.193	N	Y	0.1286	this study
Ilybius larsoni	2	Y	aggregate	broad	0.378 (0.009)	N	Y	0.184 (0.0001)	this study
Ilybius oblitus	2	Y	aggregate	broad	1.965	Y	Y	0.9595	this study
Ilybius vancouverensis	5	Y	aggregate	broad	0.155 (0.005)	N	N		this study
Laccophilus fasciatus	5	Y	rouleaux	broad	0.833 (0.015)	Y	N		this study
Laccophilus horni	2	Y	rouleaux	elongate	1.263	Y	N		this study
Laccophilus maculosus	5	Y	rouleaux	broad	1.111 (0.020)	Y	N		this study
Laccophilus sp.	3	Y	rouleaux	elongate			N		this study
Limbodessus compactus	3	Y	rouleaux	broad	1.126*	Y	N		this study
Liodessus affinis	5	Y	rouleaux	broad	0.574 (0.014)	Y	N		this study
Liodessus obscurellus	2	Y	rouleaux	broad	0.541 (0.013)	Y	N		this study
Lioporeus pilatei	1	Y	aggregate?	broad	0.203	N	N		this study
Lioporeus triangularis	1	Y	aggregate?	broad	0.196	N	N		this study
Matus bicarinatus	5	Y	rouleaux	elongate	1.196 (0.033)	Y	N		this study
Megaporus hamatus	1	Y	rouleaux	broad	1.159*	Y	N		this study
Megaporus sp	2	?		broad	0.853*	Y	N		this study
Melanodytes pustulatus	1	Y	paired	broad			N		Dallai and Afzelius 1987
Nebrioporus rotundatus	5	Y	rouleaux	broad	0.681 (0.017)	Y	N		this study
Necterosoma sp.	5	Y	rouleaux	elongate	0.822*	Y	N		this study
Necterosoma sp.	2	Y	rouleaux	elongate	0.704*	Y	N		this study
Necterosoma susana	1	Y	rouleaux	elongate			N		this study
Neoclypeodytes fryii	1	Y	rouleaux	broad	0.633	Y	N		this study

Neoporus arizonicus	1	Y	rouleaux	broad			N		this study
Neoporus mellitus	1	Y	rouleaux	broad	1.665*	Y	N		this study
Neoporus sp.	5	Y	rouleaux	broad	1.352 (0.038)	Y	N		this study
Neoporus sp.	1	Y	rouleaux	broad	1.561*	Y	N		this study
Neoporus superioris	2	Y	rouleaux	broad	1.164 (0.059)	Y	N		this study
Neoporus undulatus	6	Y	rouleaux	broad	1.342 (0.020)	Y	N		this study
Neoporus vittatus	1	Y	rouleaux	broad	1.556*	Y	N		this study
Neoprous dimidiatus	4	Y	rouleaux	broad	2.099 (0.023)	Y	N		this study
Oreodytes congruus	3	Y	rouleaux	broad	0.215 (0.005)	N	N		this study
Oreodytes obesus	5	Y	rouleaux	broad	0.252 (0.005)	N	N		this study
Oreodytes scitulus	2	Y	rouleaux	broad	0.406	N	N		this study
Oreodytes snowqualamie	3	Y	rouleaux	broad	0.379 (0.011)	N	N		this study
Pachydrus princeps	3	N		elongate	1.803 (0.026)	Y	N		this study
Pachydrus sp.	2	Y	aggregate	elongate			N		this study
Peschetius sp.	1	Y	rouleaux	broad	2.575*	Y	N		this study
Platambus semivittatus	5	Y	aggregate	elongate	0.405 (0.015)	N	Y	0.228 (0.004)	this study
Platynectes decempunctatus	2	Y	aggregate	elongate	2.088*	Y	N		this study
Platynectes laurianus	1	?		elongate	1.626*	Y	N		this study
Porhydrus sp.	4	N		broad			N		this study
Rhantaticus congestus	1	Y	paired	broad	0.314	N	N		this study
Rhantus atricolor	5	Y	aggregate	broad	0.168 (0.002)	N	N		this study
Rhantus binotatus	5	Y	aggregate	broad	0.149 (0.002)	N	N		this study
Rhantus calidus	1	Y	aggregate	broad	0.317	N	N		this study
Rhantus consimilis	7	Y	aggregate	broad	0.182 (0.003)	N	N		this study
Rhantus guticollis	3	Y	aggregate	broad	0.155 (0.004)	N	N		this study
Rhantus sericans	2	Y	aggregate	broad	0.227 (0.001)	N	N		Werner 1983
Sternopriscus handsardii	1	Y	rouleaux	elongate	0.642	Y	N		this study
Stictonectes sp.	1	Y	rouleaux	broad			N		this study
Stictotarsus aequinotialis	5	Y	rouleaux	broad	0.539*	Y	N		this study
Stictotarsus corpulentus	4	Y	rouleaux	broad			N		this study
Stictotarsus corvinus	2	Y	rouleaux	broad	0.521*	N	N		this study
Stictotarsus striatellus	1	Y	rouleaux	broad	0.472	N	N		this study
Thermonectus basilaris	5	N		elongate	0.202 (0.002)	N	N		this study
Thermonectus marmoratus	4	Y	paired	broad	0.251 (0.001)	N	N		this study
Thermonectus nigrofasciatus	1	Y	paired	elongate	0.288	N	N		this study
Uvarus lacustris	2	Y	rouleaux	elongate	1.716	Y	N		this study
Yola sp.	4	Y	rouleaux	broad	1.091*	Y	N		this study