

Appendix 1. (Online Supplementary Material) Species, gliding strategies, species distributions, geographic range sizes, habitat, and egg buoyancy characteristics used for concentrated changes tests.

Species	Gliding strategy	Species distribution (reference #)	Geographic range size	Habitat (reference #)	Egg buoyancy (reference #)
<i>Cheilopogon abei</i> (Parin, 1996)	4 wings	Indian, Indo-Pacific (1)	2 or more ocean basins	meroeipelagic (1)	Buoyant (2)
<i>Cheilopogon atrisignis</i> (Jenkins, 1903)	4 wings	Indian, Pacific (1)	2 or more ocean basins	meroeipelagic (3)	Buoyant (4)
<i>Cheilopogon cyanopterus</i> (Valenciennes, 1847)	4 wings	Atlantic, Indo-Pacific (2)	2 or more ocean basins	meroeipelagic (3)	Non-Buoyant (5)
<i>Cheilopogon dorsomaculata</i> (Fowler, 1944)	4 wings	Pacific (1)	within 1 ocean basin	holoeipelagic (1)	Buoyant (2)
<i>Cheilopogon exsiliens</i> (Linnaeus, 1771)	4 wings	Atlantic (2)	within 1 ocean basin	holoeipelagic (3)	Buoyant (2,5)
<i>Cheilopogon furcatus</i> (Mitchill, 1815)	4 wings	Atlantic, Indian, Pacific (6)	2 or more ocean basins	holoeipelagic (3)	Non-Buoyant (5)
<i>Cheilopogon melanurus</i> (Valenciennes, 1847)	4 wings	Atlantic (7)	within 1 ocean basin	meroeipelagic (7)	Non-Buoyant (5,8)
<i>Cheilopogon pinnatibarbus (californicus)</i> (Cooper, 1863)	4 wings	eastern tropical Pacific (9)	within 1 ocean basin	meroeipelagic (3)	Non-Buoyant (10)
<i>Cheilopogon splonotopterus</i> (Bleeker, 1865)	4 wings	Indian and Pacific (1)	2 or more ocean basins	meroeipelagic (3)	Buoyant (4)
<i>Cheilopogon xenopterus</i> (Gilbert, 1890)	4 wings	eastern tropical Pacific (11)	within 1 ocean basin	meroeipelagic (3)	Non-Buoyant (12)
<i>Cypselurus angusticeps</i> (Nichols & Breder, 1935)	4 wings	Indo-Pacific, Pacific (1)	within 1 ocean basin	meroeipelagic (3)	Non-Buoyant (3)
<i>Cypselurus callopterus</i> (Günther, 1866)	4 wings	eastern tropical Pacific (9)	within 1 ocean basin	meroeipelagic (3)	Non-Buoyant (3)
<i>Cypselurus hexazona</i> (Bleeker, 1853)	4 wings	Indo-Pacific (1)	within 1 ocean basin	meroeipelagic (1)	Non-Buoyant (3)
<i>Exocoetus monocirrhus</i> (Richardson, 1846)	2 wings	Indian and Pacific (13)	2 or more ocean basins	holoeipelagic (13)	Buoyant (13)
<i>Exocoetus obtusirostris</i> (Günther, 1866)	2 wings	Atlantic (13)	within 1 ocean basin	holoeipelagic (13)	Buoyant (13)
<i>Exocoetus peruvianus</i> (Parin & Shakhovskoy, 2000)	2 wings	eastern tropical Pacific (13)	within 1 ocean basin	holoeipelagic (13)	Buoyant (13)
<i>Exocoetus volitans</i> (Linnaeus, 1758)	2 wings	Atlantic, Indian, Pacific (13)	2 or more ocean basins	holoeipelagic (13)	Buoyant (13)
<i>Fodiator rostratus</i> (Günther, 1866)	2 wings	eastern tropical Pacific (9)	within 1 ocean basin	meroeipelagic (9)	Non-Buoyant (3)
<i>Hirundichthys affinis</i> (Günther, 1866)	4 wings	Atlantic (5)	within 1 ocean basin	meroeipelagic (3)	Non-Buoyant (5,14)
<i>Hirundichthys albimaculatus</i> (Fowler, 1934)	4 wings	Pacific (15)	within 1 ocean basin	holoeipelagic (3,16)	Non-Buoyant (3)
<i>Hirundichthys marginatus</i> (Nichols & Breder, 1928)	4 wings	Pacific (15)	within 1 ocean basin	holoeipelagic (9)	Non-Buoyant (10)
<i>Hirundichthys rondelleti (valador)</i> (Valenciennes, 1847)	4 wings	western Atlantic (15)	within 1 ocean basin	holoeipelagic (3)	Non-Buoyant (5,14)
<i>Hirundichthys speculiger</i> (Valenciennes, 1847)	4 wings	Atlantic, Indian, Pacific (1)	2 or more ocean basins	holoeipelagic (3,16)	Non-Buoyant (5,10,14)
<i>Parexocoetus brachypterus</i> (Richardson, 1846)	2 wings	Indo-Pacific, Pacific (1)	2 or more ocean basins	meroeipelagic (3)	Non-Buoyant (14,17)
<i>Parexocoetus hillianus</i> (Gosse, 1851)	2 wings	Atlantic (5)	within 1 ocean basin	meroeipelagic (5)	Non-Buoyant (5)
<i>Parexocoetus mento</i> (Valenciennes, 1847)	2 wings	Indo-Pacific (1)	2 or more ocean basins	meroeipelagic (3)	Non-Buoyant (14)
<i>Prognichthys gibbifrons</i> (Valenciennes, 1847)	4 wings	eastern Atlantic (18)	within 1 ocean basin	meroeipelagic (18)	Buoyant (16)
<i>Prognichthys glaphyrae</i> (Parin, 1999a)	4 wings	Atlantic (18)	within 1 ocean basin	holoeipelagic (18)	Buoyant (5,16)
<i>Prognichthys occidentalis</i> (Parin, 1999a)	4 wings	western Atlantic (18)	within 1 ocean basin	meroeipelagic (18)	Buoyant (16)
<i>Prognichthys sealei</i> (Abe, 1955)	4 wings	Indian, Pacific, Atlantic (18)	2 or more ocean basins	holoeipelagic (3,16)	Buoyant (16)
<i>Prognichthys tringa</i> (Breder, 1928)	4 wings	eastern tropical Pacific (9)	within 1 ocean basin	meroeipelagic (9,10)	Buoyant (16)

Beloniform Outgroups

<i>Hemiramphus far</i> (Forsskål, 1775)	absent	Pacific, Indian, Mediterranean (19)	2 or more ocean basins	meroeipelagic (19)	Non-buoyant (20)
<i>Hyporhamphus quoyi</i> (Valenciennes, 1847)	absent	Pacific, Indo-Pacific (19)	within 1 ocean basin	meroeipelagic and freshwater (19)	Buoyant (20)
<i>Oxyporhamphus micropterus</i> (Valenciennes, 1847)	absent	Pacific, Indian (19)	2 or more ocean basins	Holoepelagic (19)	Buoyant (3,14)
<i>Oxyporhamphus micropterus (similis)</i> (Bruun, 1935)	absent	Atlantic (21)	within 1 ocean basin	Holoepelagic (21)	Buoyant (3)
<i>Zenarchopterus buffonis</i> (Valenciennes, 1847)	absent	Indo-Pacific (21)	within 1 ocean basin	Estuarine (19)	Non-buoyant (20)

Appendix 1. References

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