

Table S1. Habitat and occurrence patterns of *Aurelia* species across various regions.

Area	Species	Location	Water Temp. (°C)	Ephyrae		Medusae		Ref.
				Occu. (month)	Occu. (month)	BD (cm)	Growth rate (day ⁻¹)	
East Asia	<i>Aurelia coerulea</i>	Geoje Bay, Korea	8.8–28	2–4	WY	6–30	-0.007–0.07	This study
		Maizuru Bay, Japan	11–28	12–5	WY	nd	nd	Suzuki et al. [77]
		Tokyo Bay, Japan	10–26	3–5	WY	30(max)	0.07	Omori et al. [60]
	<i>A. aurita</i>	Tapong Bay, SW Taiwan	17–33	12–4	WY	29.7(max)	0.8**	Lo and Chen [34]
		Inland Sea of Japan	9.3–29.6	1–2	4–11	16.4–27.3	0.07	Uye and Shimauchi [67]
		Jiaozhou Bay, China	4–27.4	5–6	7–9	16.8(max)	nd	Wang and Sun [45]
	<i>A. aurita</i> sp.1	Lake Nakaumi, Japan	3.2–30.7	12–4	6–11	10.4–17.1	nd	Han et al. [33]
		Mikawa Bay, Japan	8.3–26.5	nd	3–8	12–32.6	0.06–0.08	Aoki et al. [78]
Mediterranean	<i>A. aurita</i> sp.	Thau lagoon	4.6–26.7	11–5	3–6	22.38(max)	0.57–2.53**	Marques et al. [79]
		Berre lagoon, France	4.5–25.6	11–4	1–5	17(max)	1.57–2.22**	Marques et al. [79]
		Mijet Island (veliko Jezero)	9.7–29.4	nd	WY	55(max)	nd	Benovic et al. [80]
		Bages-Sigean	11.2–27.6	nd	5–8	31.9(max)	2.66**	Marques et al. [79]
Baltic sea	<i>A. aurita</i>	Kiel Bight, W. Baltic sea	nd	11–8	4–11	44(max)	0.18	Möller [70]
Northeastern Atlantic	<i>A. aurita</i>	Gullmarfjord, Sweden	1–14	10–5	4–6	nd	0.23	Hernroth and Grondahl [81]
		Horsea Lake, U.K	5.5–23	12–6	WY	10.5(max)	-0.03–0.07	Lucas [22]
		Southampton Water, U.K	4–21	2–5	4–6	2–15	0.02–4.8	Lucas and Williams [82]
		Vagsbopollen, Norway	8–15.8	nd	nd	11.8(max)	0.04–0.1	Ishii and Båmstedt [23]
		Kertinge Nor, Denmark	2–22	2–3	4–8	22.3(max)	-0.09–0.17	Møller and Riisgård [63]
Black sea	<i>A. aurita</i>	Black sea	8–26	3–5	WY	1.2–43	nd	Mutlu [68]
Northwestern Pacific	<i>A. aurita</i> sp.4	Jellyfish Lake, Palau	30–33	WY	WY	29(max)	nd	Hamner and Jenssen [64]

*Abbreviations: Water Temp.: water temperature, Occu.: occurrence, BD: Bell diameter, nd: no data, WY: whole year

**Growth rate unite: mm day⁻¹

Table S2. Total abundance (ind. m⁻³) of zooplankton species in the Geoje Bay.

Species	Month											
	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.
Calanoida												
<i>Acartia erythraea</i>	0	0	0	0	0	0	0	0	0	0	0	38
<i>Acartia ohtsukai</i>	0	0	0	0	0	0	0	0	0	0	73	160
<i>Acartia</i> spp.	8131	7961	6826	10176	10381	1915	1221	457	5558	8984	491	1558
<i>Calanus sinicus</i>	0	0	0	39	0	0	0	0	0	0	0	1
<i>Centropages abdominalis</i>	0	0	8	23	0	0	0	0	0	0	0	0
<i>Eurytemora pacifica</i>	167	263	3348	9572	8863	12	0	0	0	0	0	0
<i>Paracalanus parvus</i> s.l.	455	166	98	367	555	37	62	3	47	617	12	120
<i>Pseudodiaptomus inopinus</i>	0	0	0	0	0	0	0	0	0	0	15	0
<i>Labidocera euchaeta</i>	0	0	0	0	0	2	0	0	0	0	0	0
<i>Labidocera</i> copepodite	0	0	0	0	0	0	0	0	0	0	6	0
Cyclopoida												
<i>Corycaeus affinis</i>	0	6	0	0	0	13	0	0	0	0	0	0
<i>Oithona davisae</i>	0	0	0	0	0	0	0	0	129	61	12	3
<i>Oithona similis</i>	44	15	12	0	0	0	15	0	0	0	0	0
<i>Oncaea</i> sp.	2	0	0	0	0	0	0	0	0	0	0	0
Harpacticoida												
Unidentified Harpacticoids	0	0	0	0	0	9	0	0	0	0	0	0
Cladoceran												
<i>Podon leukartii</i>	0	0	0	0	0	6	15	107	607	263	14	0
<i>Pseudevadne tergestina</i>	0	0	0	0	0	0	0	0	191	12	0	0

Chaetognatha

<i>Sagitta</i> juvenile	4	20	0	0	0	0	7	0	0	0	0	5
<i>Sagitta</i> <i>nagae</i>	0	0	0	0	0	0	0	0	0	0	4	0

Appendicularia

<i>Oikopleura</i> spp.	0	0	42	71	0	2	54	17	81	98	0	0
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Larvae

Calytopis larvae	0	0	0	0	0	0	0	0	33	0	2	0
Cirriped larvae	16	0	0	0	0	6	682	456	774	2044	208	816
Lucifer larvae	0	0	0	0	0	0	0	1	0	0	0	0
Megalopa larvae	0	0	0	0	0	0	0	1	0	0	4	0
Mollusks larvae	0	0	0	0	0	1	15	0	99	165	13	0
Mysid larvae	0	4	44	27	52	3	22	0	0	22	0	8
Polychaeta larvae	0	0	0	0	0	51	0	6	0	11	0	0
Zoea larvae	0	10	0	0	0	0	54	4	16	0	0	0
