

Supplementary Material: Specimen collection information

This document contains collection information and photos for samples intended for population genomic sequencing.

Table 1: Specimen data.

ID	ocean region	location	latitude	longitude	date collected	quality status	permit
FM16644	NE Atlantic	Canary Islands	28.591940	-17.920910	5/14/2023	high quality	
KM5632	SW Pacific	Tasmania	-41.863900	148.286500	1/14/2023	moderate quality	
KM5633	SW Pacific	Tasmania	-41.863900	148.286500	1/14/2023	moderate quality	
KM5634	SW Pacific	Tasmania	-41.863900	148.286500	1/14/2023	moderate quality	
KM5635	SW Pacific	Tasmania	-41.863900	148.286500	1/14/2023	moderate quality	
KM5636	SW Pacific	Tasmania	-41.863900	148.286500	1/14/2023	moderate quality	
OA-190531-1	SW Pacific	New South Wales	-33.891500	151.276700	12/15/2019	high quality	
OA-Bluebottle	SW Pacific	New South Wales	-33.920300	151.258100	1/1/2022	moderate quality	
WAMZ88480	E Indian	Western Australia	-31.908144	115.754811	8/3/2018	high quality	
WAMZ97900	E Indian	Western Australia	-31.855786	115.751741	4/19/2019	high quality	
WAMZ97901	E Indian	Western Australia	-31.855786	115.751741	4/19/2019	high quality	
WAMZ97902	E Indian	Western Australia	-31.855786	115.751741	4/19/2019	high quality	
WAMZ97903	E Indian	Western Australia	-31.855786	115.751741	4/19/2019	high quality	
WAMZ97906	E Indian	Western Australia	-31.855786	115.751741	4/19/2019	high quality	
WAMZ97907	E Indian	Western Australia	-31.855786	115.751741	4/19/2019	high quality	
WAMZ97908	E Indian	Western Australia	-31.855786	115.751741	4/19/2019	high quality	
WAMZ97910	E Indian	Western Australia	-31.855786	115.751741	4/19/2019	high quality	
WAMZ97911	E Indian	Western Australia	-31.855786	115.751741	4/19/2019	high quality	
WAMZ97914	E Indian	Western Australia	-31.855786	115.751741	4/19/2019	high quality	
WAMZ97916	E Indian	Western Australia	-31.855786	115.751741	4/19/2019	high quality	
WAMZ97917	SW Pacific	New South Wales	-33.787002	151.288609	1/18/2019	high quality	
WAMZ97920	SW Pacific	New South Wales	-33.987424	151.231329	2/5/2018	high quality	
WAMZ97921	SW Pacific	Queensland	-26.784003	153.140596	1/19/2019	high quality	
WAMZ97923	SW Pacific	Queensland	-26.784003	153.140596	1/19/2019	high quality	
YPM-IZ-104460	NW Pacific	Guam	13.427861	144.798518	11/23/2018	high quality	Guam Department of Agriculture, Division of Aquatic and Wildlife Resources
YPM-IZ-104461	NW Pacific	Guam	13.427861	144.798518	11/23/2018	high quality	Guam Department of Agriculture, Division of Aquatic and Wildlife Resources
YPM-IZ-104464	NW Pacific	Guam	13.427861	144.798518	11/23/2018	high quality	Guam Department of Agriculture, Division of Aquatic and Wildlife Resources
YPM-IZ-104465	NW Pacific	Guam	13.427861	144.798518	11/23/2018	high quality	Guam Department of Agriculture, Division of Aquatic and Wildlife Resources
YPM-IZ-106919	NW Pacific	Japan	35.307390	139.480651	11/19/2020	high quality	
YPM-IZ-106920	NW Pacific	Japan	35.307390	139.480651	11/19/2020	high quality	
YPM-IZ-106923	NW Pacific	Japan	35.307390	139.480651	11/19/2020	high quality	
YPM-IZ-106935	Gulf of Mexico	Texas	29.19532	-94.8429383	3/2/2016	high quality	
YPM-IZ-106936	Gulf of Mexico	Texas	29.19532	-94.8429383	3/3/2016	high quality	
YPM-IZ-106937	Gulf of Mexico	Texas	29.19532	-94.8429383	3/3/2016	high quality	
YPM-IZ-106941	NW Atlantic	Bermuda	32.323333	-64.656300	5/18/2019	high quality	Bermuda Department of Environment and Natural Resources; SP190501
YPM-IZ-106943	NW Atlantic	Bermuda	32.341117	-64.669133	5/18/2019	high quality	Bermuda Department of Environment and Natural Resources; SP190501
YPM-IZ-106954	NW Atlantic	Bermuda	32.367233	-64.714550	5/20/2019	high quality	Bermuda Department of Environment and Natural Resources; SP190501
YPM-IZ-106958	Gulf of Mexico	Texas	29.195320	-94.842938	3/18/2017	high quality	
YPM-IZ-110251	NW Atlantic	Florida	25.737060	-80.152790	12/22/2022	high quality	

Table 1: Specimen data. *(continued)*

ID	ocean region	location	latitude	longitude	date collected	quality status	permit
YPM-IZ-110254	NW Atlantic	Florida	25.736470	-80.153500	12/22/2022	high quality	
YPM-IZ-110264	Central Pacific	Hawai'i	22.069018	-159.316685	10/31/2022	high quality	
YPM-IZ-110268	Central Pacific	Hawai'i	22.069018	-159.316685	11/4/2022	moderate quality	
YPM-IZ-110269	Central Pacific	Hawai'i	22.069018	-159.316685	11/4/2022	high quality	
YPM-IZ-110276	Central Pacific	Hawai'i	20.9225222	-156.4926917	11/19/2022	high quality	
YPM-IZ-110277	Central Pacific	Hawai'i	20.9225222	-156.4926917	11/19/2022	moderate quality	
YPM-IZ-110278	Central Pacific	Hawai'i	20.9225222	-156.4926917	11/19/2022	high quality	
YPM-IZ-110433	NW Atlantic	Florida	25.741630	-80.175194	3/14/2023	high quality	
YPM-IZ-110438	Gulf of Mexico	Texas	28.989194	-95.237778	3/24/2023	moderate quality	Texas NR Saltwater Fishing License, 958064721164
YPM-IZ-110443	Gulf of Mexico	Texas	28.951778	-95.283167	3/24/2023	high quality	Texas NR Saltwater Fishing License, 958064721164
YPM-IZ-110460	Central Pacific	Hawai'i	21.400790	-157.734500	11/14/2022	high quality	
YPM-IZ-110467	SW Pacific	New Zealand	-41.330278	174.831944	2/16/2023	high quality	
YPM-IZ-110468	SW Pacific	New Zealand	-41.330000	174.833056	2/16/2023	high quality	
YPM-IZ-110469	SW Pacific	New Zealand	-41.330000	174.833056	2/16/2023	high quality	
YPM-IZ-110470	SW Pacific	New Zealand	-41.330000	174.833056	2/16/2023	high quality	
YPM-IZ-110471	Central Pacific	Hawai'i	21.400790	-157.734500	4/9/2023	high quality	
YPM-IZ-110473	Central Pacific	Hawai'i	21.400790	-157.734500	4/9/2023	high quality	
YPM-IZ-110474	Central Pacific	Hawai'i	21.454600	-157.748500	4/4/2023	high quality	
YPM-IZ-110480	Central Pacific	Hawai'i	21.454600	-157.748500	4/6/2023	high quality	
YPM-IZ-110515	SW Pacific	New South Wales	-33.947500	151.257361	2/9/2023	high quality	
YPM-IZ-110520	SW Pacific	New South Wales	-33.947500	151.257361	2/19/2023	high quality	
YPM-IZ-110526	SW Pacific	New South Wales	-33.947500	151.257361	4/23/2023	high quality	
YPM-IZ-110556	SW Pacific	Tasmania	-41.996839	148.284729	12/25/2022	high quality	
YPM-IZ-110557	SW Pacific	Tasmania	-41.996839	148.284729	12/25/2022	high quality	
YPM-IZ-110558	SW Pacific	Tasmania	-41.996839	148.284729	12/25/2022	high quality	
YPM-IZ-110566	NW Pacific	Guam	13.605463	144.907196	1/24/2022	high quality	
YPM-IZ-110569	NW Pacific	Guam	13.427664	144.801336	1/27/2022	moderate quality	
YPM-IZ-110600	NW Pacific	Guam	13.372435	144.773357	4/27/2023	high quality	
YPM-IZ-110602	NW Pacific	Guam	13.372435	144.773357	4/27/2023	high quality	
YPM-IZ-110605	SW Pacific	Queensland	-28.089089	153.453921	2/3/2023	high quality	Queensland Government General Fisheries Permit #209751; NSW Department of Primary Industries Scientific Collection Permit # P18/0012-1.0
YPM-IZ-110612	SW Pacific	New South Wales	-30.745087	152.995494	3/26/2023	high quality	Queensland Government General Fisheries Permit #209751; NSW Department of Primary Industries Scientific Collection Permit # P18/0012-1.0
YPM-IZ-110613	SW Pacific	New South Wales	-30.745087	152.995494	3/26/2023	high quality	Queensland Government General Fisheries Permit #209751; NSW Department of Primary Industries Scientific Collection Permit # P18/0012-1.0
YPM-IZ-110616	SW Pacific	New South Wales	-30.881192	153.035604	3/26/2023	high quality	Queensland Government General Fisheries Permit #209751; NSW Department of Primary Industries Scientific Collection Permit # P18/0012-1.0

Table 1: Specimen data. *(continued)*

ID	ocean region	location	latitude	longitude	date collected	quality status	permit
YPM-IZ-110631	NW Atlantic	Northeast US	41.346250	-71.678310	7/14/2023	high quality	RIDEM- Division of Marine Fisheries, 855, Type:1; RI: Scientific Collectors Permit #855
YPM-IZ-110633	NW Atlantic	Northeast US	41.377020	-71.527820	7/15/2023	high quality	RIDEM- Division of Marine Fisheries, 855, Type:1; RI: Scientific Collectors Permit #855
YPM-IZ-110667	NW Atlantic	Northeast US	40.857420	-71.779920	7/20/2023	high quality	NY: Scientific License #1427
YPM-IZ-110694	NW Atlantic	Northeast US	41.344990	-70.836797	7/26/2023	high quality	RIDEM- Division of Marine Fisheries, 855, Type:1; RI: Scientific Collectors Permit #855
YPM-IZ-110716	NE Atlantic	Spain	36.458090	-6.252680	4/2/2013	high quality	
YPM-IZ-110726	NE Atlantic	Spain	36.458090	-6.252680	4/2/2013	high quality	
YPM-IZ-110738	NE Atlantic	Spain	36.458090	-6.252680	4/2/2013	high quality	
YPM-IZ-110777	Central Pacific	Hawai'i	21.400790	-157.734500	7/19/2023	high quality	
YPM-IZ-110780	Central Pacific	Hawai'i	21.400790	-157.734500	7/19/2023	high quality	
YPM-IZ-110785	Central Pacific	Hawai'i	21.400790	-157.734500	7/21/2023	high quality	
YPM-IZ-110786	Central Pacific	Hawai'i	21.400790	-157.734500	7/28/2023	high quality	
YPM-IZ-110828	SE Pacific	Chile	-29.972700	-71.360900	7/12/2023	high quality	
YPM-IZ-110829	SE Pacific	Chile	-29.972700	-71.360900	7/13/2023	high quality	
YPM-IZ-110830	SW Atlantic	Uruguay	-33.751600	-53.380100	2/28/2014	high quality	
YPM-IZ-110842	NE Atlantic	Azores	38.524769	-28.625946	7/18/2019	high quality	Secretaria Regional do Mar, Ciência e Tecnologia dos Açores, AMP/2018/021
YPM-IZ-110843	NE Atlantic	Azores	37.818604	-25.543635	5/22/2020	high quality	Secretaria Regional do Mar, Ciência e Tecnologia dos Açores, AMP/2018/021
YPM-IZ-110844	NE Atlantic	Azores	38.524769	-28.625946	11/29/2019	high quality	Secretaria Regional do Mar, Ciência e Tecnologia dos Açores, AMP/2018/021
YPM-IZ-110845	NE Atlantic	Azores	37.750488	-25.624447	8/17/2020	high quality	Secretaria Regional do Mar, Ciência e Tecnologia dos Açores, AMP/2018/021
YPM-IZ-110846	NE Atlantic	Azores	38.523756	-28.623767	7/10/2020	high quality	Secretaria Regional do Mar, Ciência e Tecnologia dos Açores, AMP/2018/021
YPM-IZ-110847	NE Atlantic	Azores	38.542865	-28.618676	7/15/2020	high quality	Secretaria Regional do Mar, Ciência e Tecnologia dos Açores, AMP/2018/021
YPM-IZ-110876	Gulf of Mexico	Texas	29.260000	-94.840000	3/19/2017	high quality	
YPM-IZ-110877	Gulf of California	Mexico	27.245000	-111.500000	6/6/2007	high quality	
YPM-IZ-110878	Gulf of California	Mexico	27.326667	-111.480000	6/9/2006	high quality	
YPM-IZ-110880	NW Atlantic	Northeast US	41.149290	-71.481140	8/23/2023	high quality	RIDEM- Division of Marine Fisheries, scientific collectors permit:855
YPM-IZ-110881	Central Pacific	Hawai'i	19.666667	-156.083333	4/10/2023	high quality	
YPM-IZ-110882	Central Pacific	Hawai'i	19.666667	-156.083333	4/10/2023	high quality	
YPM-IZ-110883	Central Pacific	Hawai'i	19.666667	-156.083333	4/10/2023	high quality	
YPM-IZ-110906	Central Pacific	NW Hawaiian Islands	26.723056	-164.766667	8/23/2023	high quality	Papahānaumokuākea Marine National Monument, PMNM-2023-001
YPM-IZ-110907	Central Pacific	NW Hawaiian Islands	26.080000	-176.470000	8/22/2023	high quality	Papahānaumokuākea Marine National Monument, PMNM-2023-001
YPM-IZ-110925	NW Pacific	Japan	28.404780	129.454826	2/4/2023	high quality	
YPM-IZ-110926	NW Pacific	Japan	35.309561	139.478820	4/10/2023	high quality	
YPM-IZ-110930	NW Pacific	Japan	35.309561	139.478820	4/30/2023	high quality	

Table 1: Specimen data. (*continued*)

ID	ocean region	location	latitude	longitude	date collected	quality status	permit
YPM-IZ-110931	NW Pacific	Japan	35.309561	139.478820	5/19/2023	high quality	
YPM-IZ-110933	NW Pacific	Japan	35.309701	139.478831	7/20/2023	high quality	
YPM-IZ-110937	NW Pacific	Japan	35.309561	139.478820	7/21/2023	high quality	
YPM-IZ-110938	NW Pacific	Japan	35.309701	139.478831	9/22/2023	high quality	
YPM-IZ-110943	NW Pacific	Japan	35.134935	140.284606	5/19/2023	high quality	
YPM-IZ-110972	NE Atlantic	Ireland	51.83707	-10.19556	10/8/2023	high quality	
YPM-IZ-111006	W Indian	South Africa	-27.539919	32.678650	8/8/2023	high quality	Department of Fisheries, Forestry and Environment, amend RES2023-78
YPM-IZ-111007	W Indian	South Africa	-27.539919	32.678650	8/8/2023	high quality	Department of Fisheries, Forestry and Environment, amend RES2023-78
YPM-IZ-111008	W Indian	South Africa	-27.539919	32.678650	8/8/2023	high quality	Department of Fisheries, Forestry and Environment, amend RES2023-78
YPM-IZ-111009	W Indian	South Africa	-27.539919	32.678650	8/8/2023	high quality	Department of Fisheries, Forestry and Environment, amend RES2023-78
YPM-IZ-111010	W Indian	South Africa	-27.539919	32.678650	8/8/2023	high quality	Department of Fisheries, Forestry and Environment, amend RES2023-78
YPM-IZ-111012	NW Atlantic	Bermuda	32.307800	-64.750500	3/8/2022	high quality	Bermuda Special Permit no. SP200501
YPM-IZ-111013	NW Atlantic	Bermuda	32.307800	-64.750500	3/8/2022	high quality	Bermuda Special Permit no. SP200501
YPM-IZ-111014	NW Atlantic	Bermuda	32.307800	-64.750500	3/9/2022	high quality	Bermuda Special Permit no. SP200501
YPM-IZ-111016	NW Atlantic	Bermuda	32.307800	-64.750500	3/9/2022	high quality	Bermuda Special Permit no. SP200501
YPM-IZ-111017	NW Atlantic	Bermuda	32.307800	-64.750500	3/9/2022	high quality	Bermuda Special Permit no. SP200501
YPM-IZ-111018	NW Atlantic	Bermuda	32.307800	-64.750500	3/9/2022	high quality	Bermuda Special Permit no. SP200501
YPM-IZ-111156	SW Pacific	Tasman Sea	-35.747000	154.330000	10/16/2023	high quality	
YPM-IZ-111157	SW Pacific	Tasman Sea	-35.747000	154.330000	10/16/2023	high quality	
YPM-IZ-111158	SW Pacific	Tasman Sea	-35.747000	154.330000	10/16/2023	high quality	
YPM-IZ-111159	SW Pacific	Tasman Sea	-35.747000	154.330000	10/16/2023	high quality	
YPM-IZ-111160	SW Pacific	Tasman Sea	-35.747000	154.330000	10/16/2023	high quality	
YPM-IZ-111163	SW Pacific	New South Wales	-33.947500	151.257361	3/18/2024	high quality	
YPM-IZ-111207	SW Pacific	New Zealand	-36.895150	174.443889	3/15/2024	high quality	
YPM-IZ-111208	SW Pacific	New Zealand	-36.895150	174.443889	3/15/2024	high quality	
YPM-IZ-111209	SW Pacific	New Zealand	-36.895150	174.443889	3/15/2024	high quality	
YPM-IZ-111210	SW Pacific	New Zealand	-36.895150	174.443889	3/15/2024	high quality	
YPM-IZ-111211	SW Pacific	New Zealand	-36.895150	174.443889	3/15/2024	high quality	
YPM-IZ-111212	SW Pacific	New Zealand	-36.895150	174.443889	3/15/2024	high quality	

Specimen photos

The following arrays of photos show specimens upon collection (left) and after ethanol fixation (right), when both views are available.

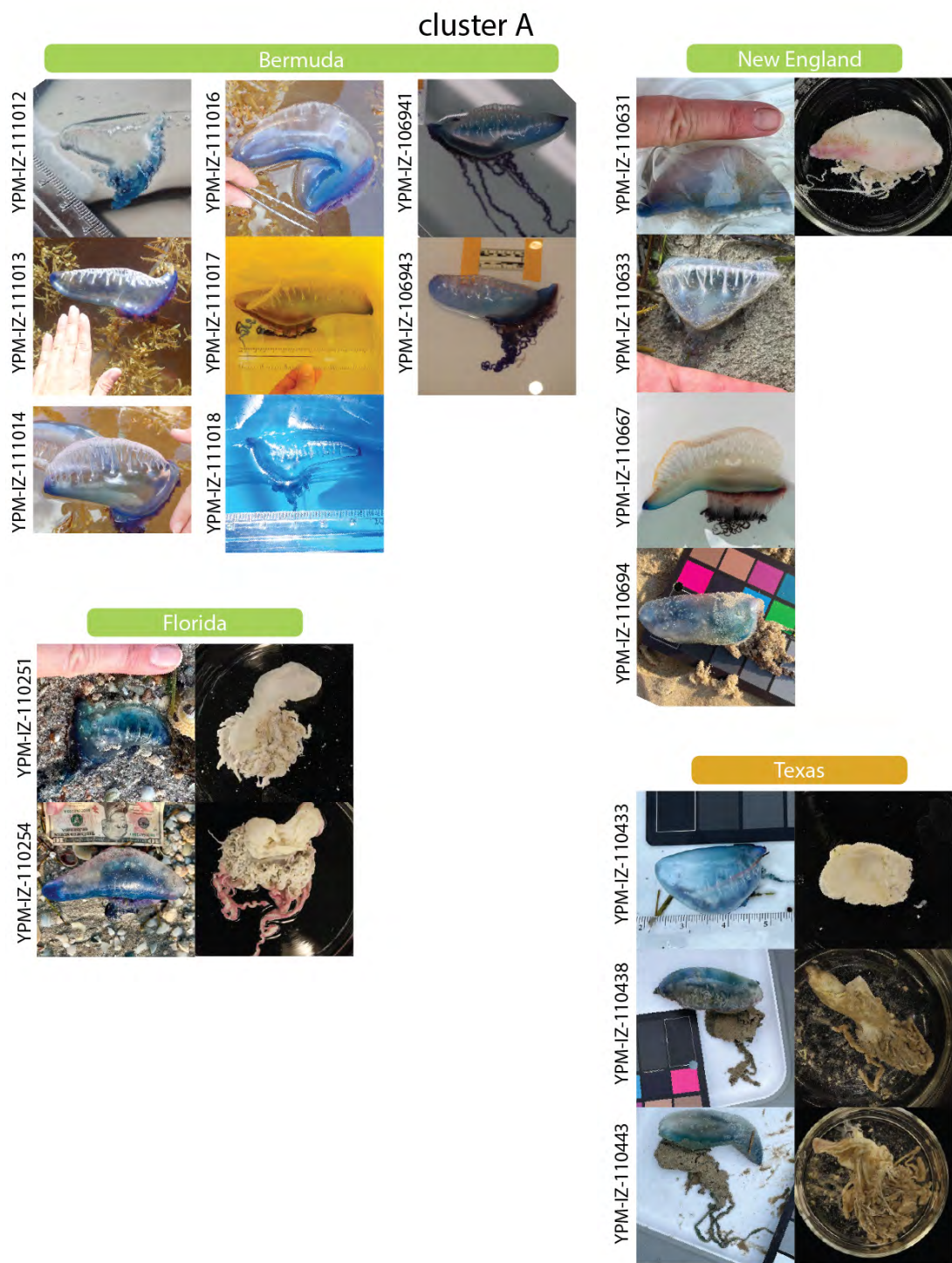


Figure 1: Specimen photos: cluster A from the NW Atlantic.

cluster A

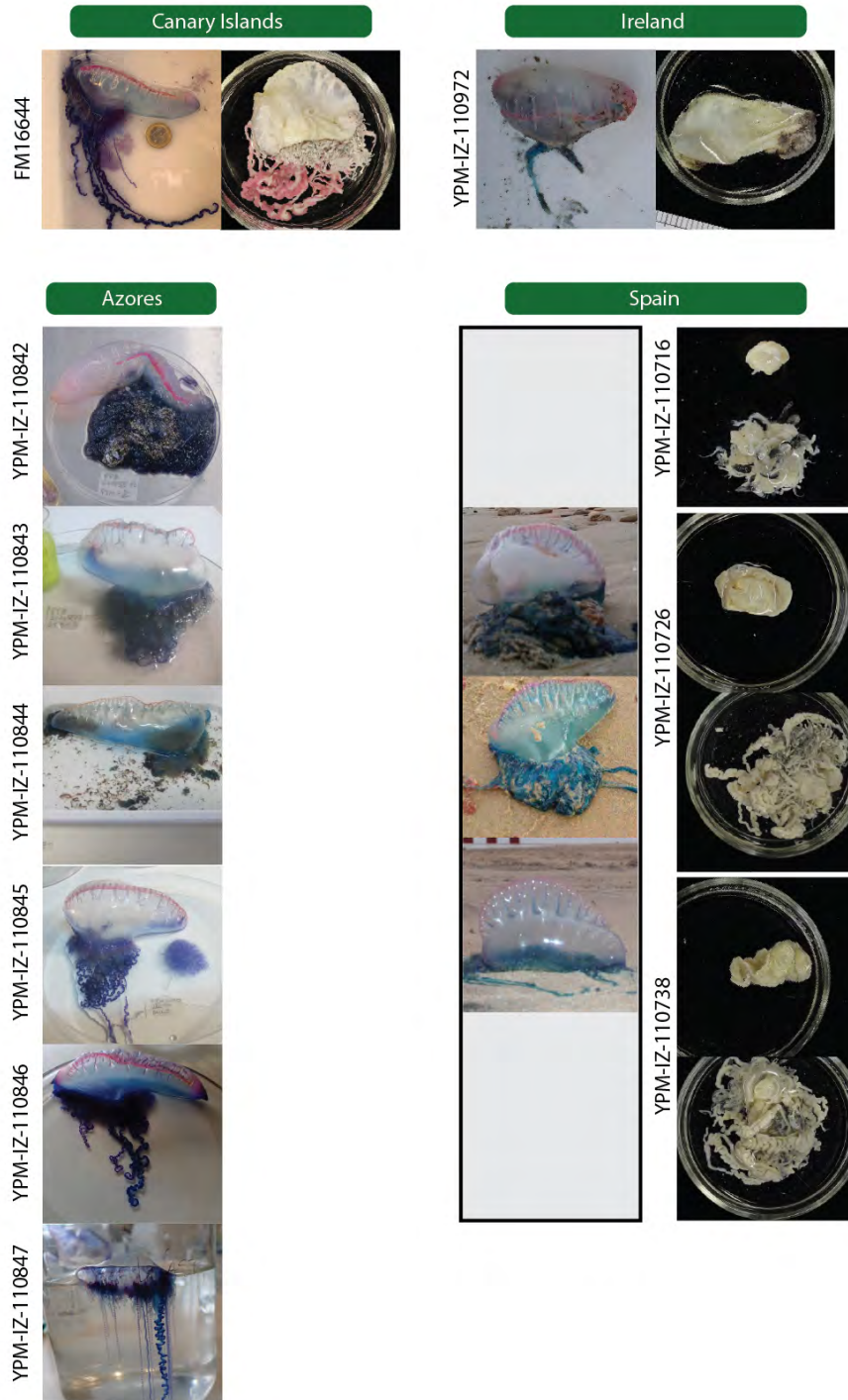


Figure 2: Specimen photos: cluster A from the NE Atlantic.

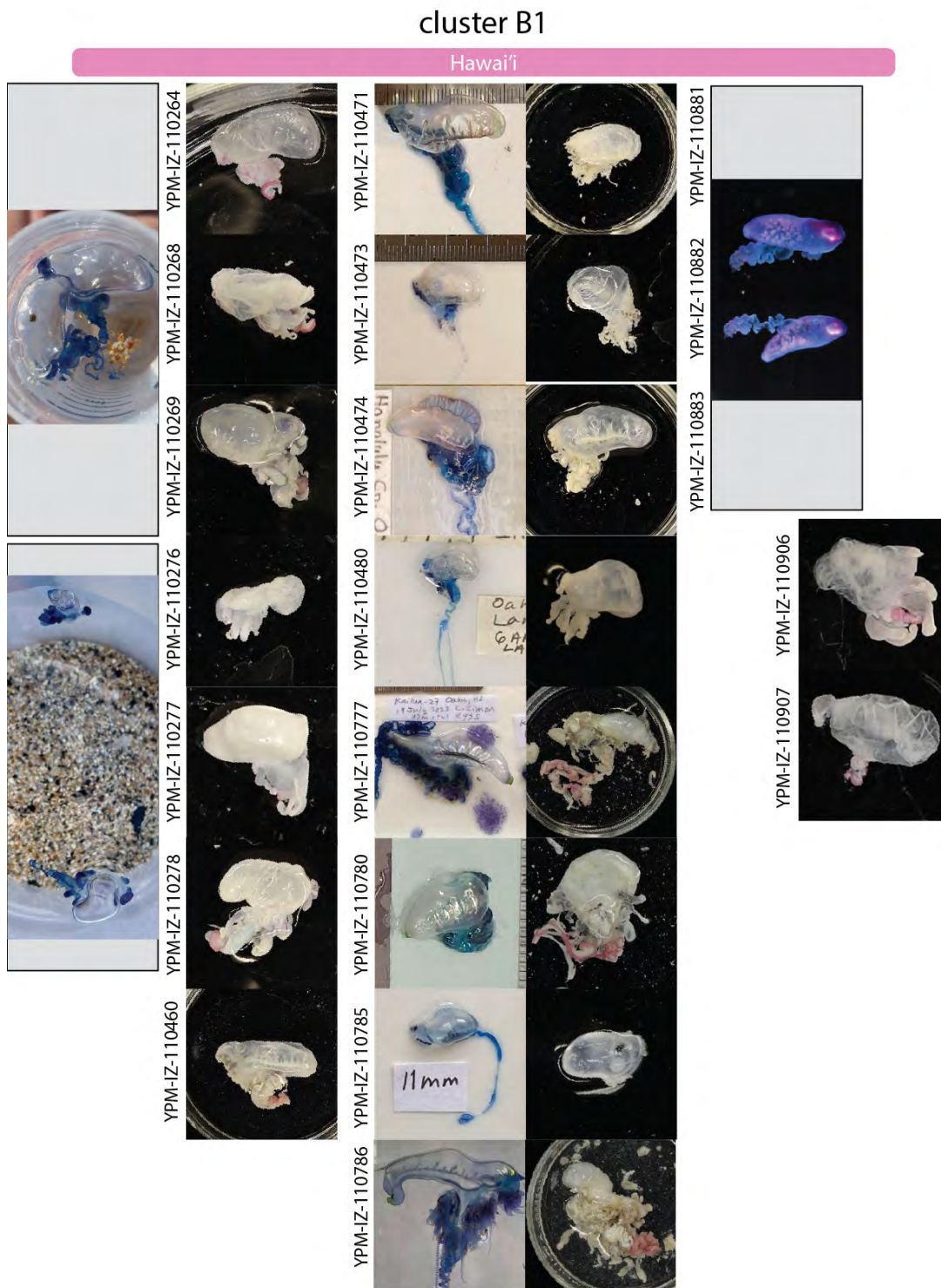


Figure 3: Specimen photos: cluster B1 from Hawai'i and the NW Hawaiian Islands.

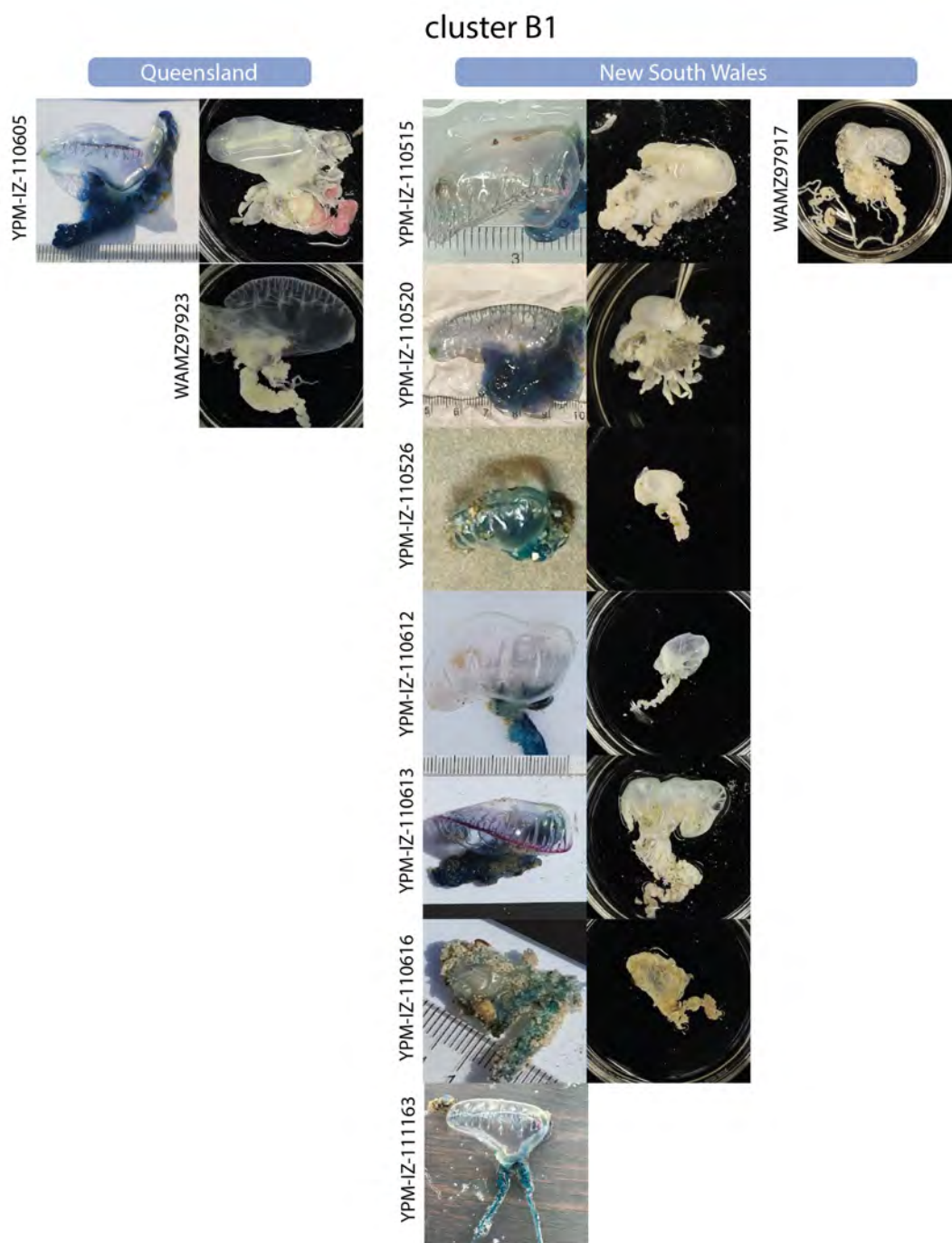


Figure 4: Specimen photos: cluster B1 from E Australia.

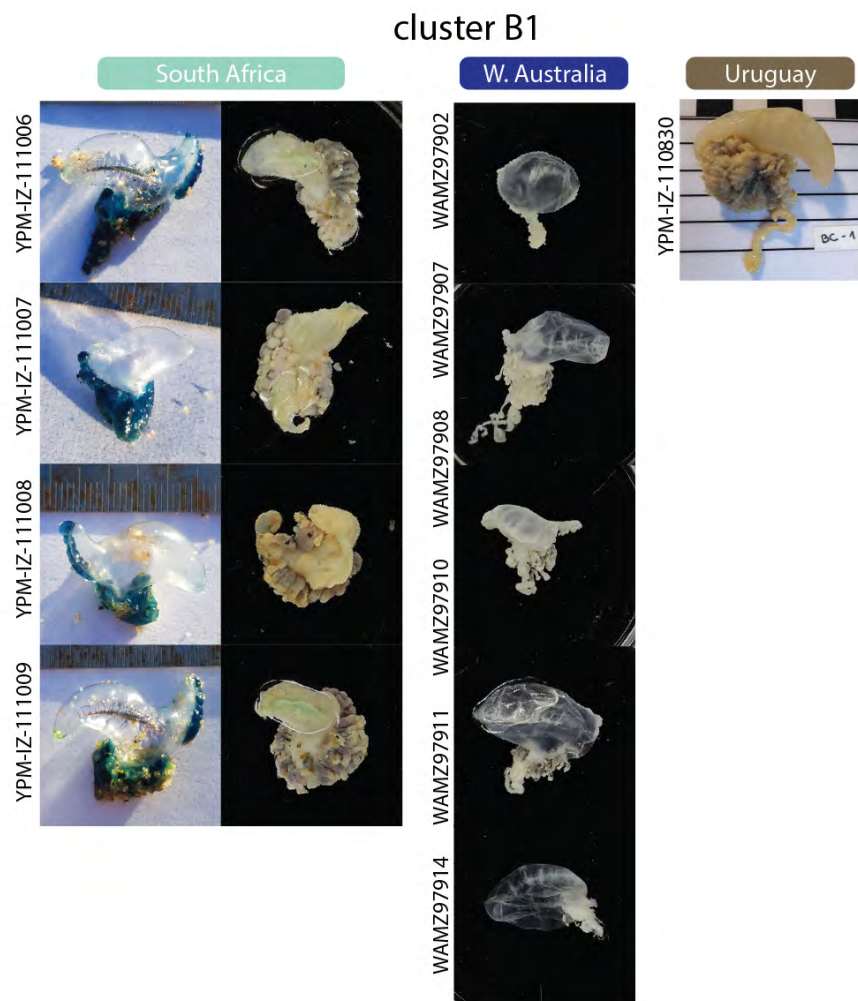


Figure 5: Specimen photos: cluster B1 from the S Indian and S Atlantic.

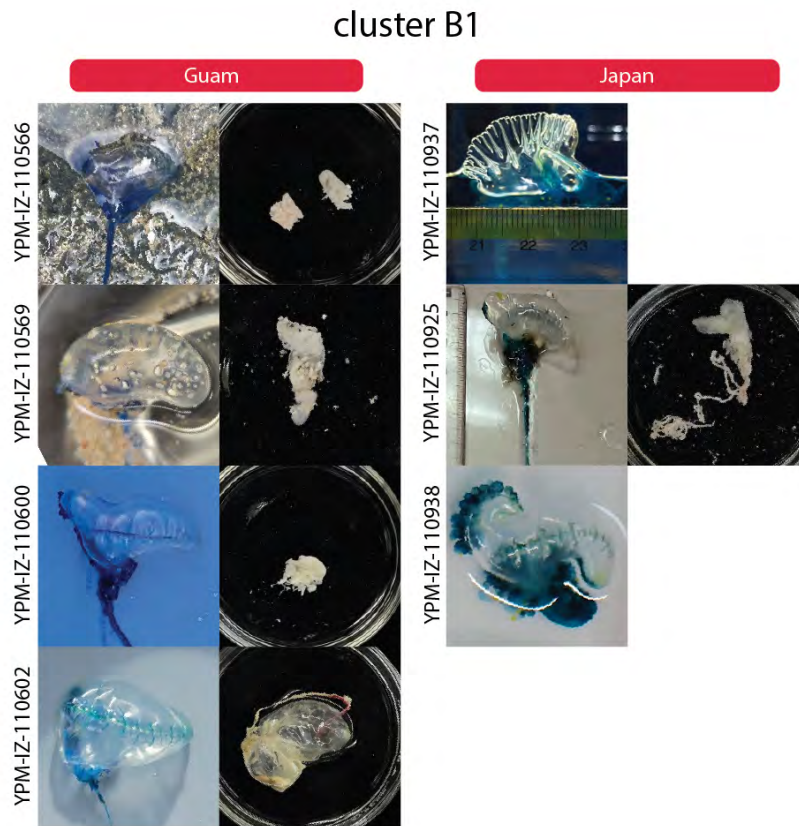


Figure 6: Specimen photos: cluster B1 from the NW Pacific, and cluster B2.

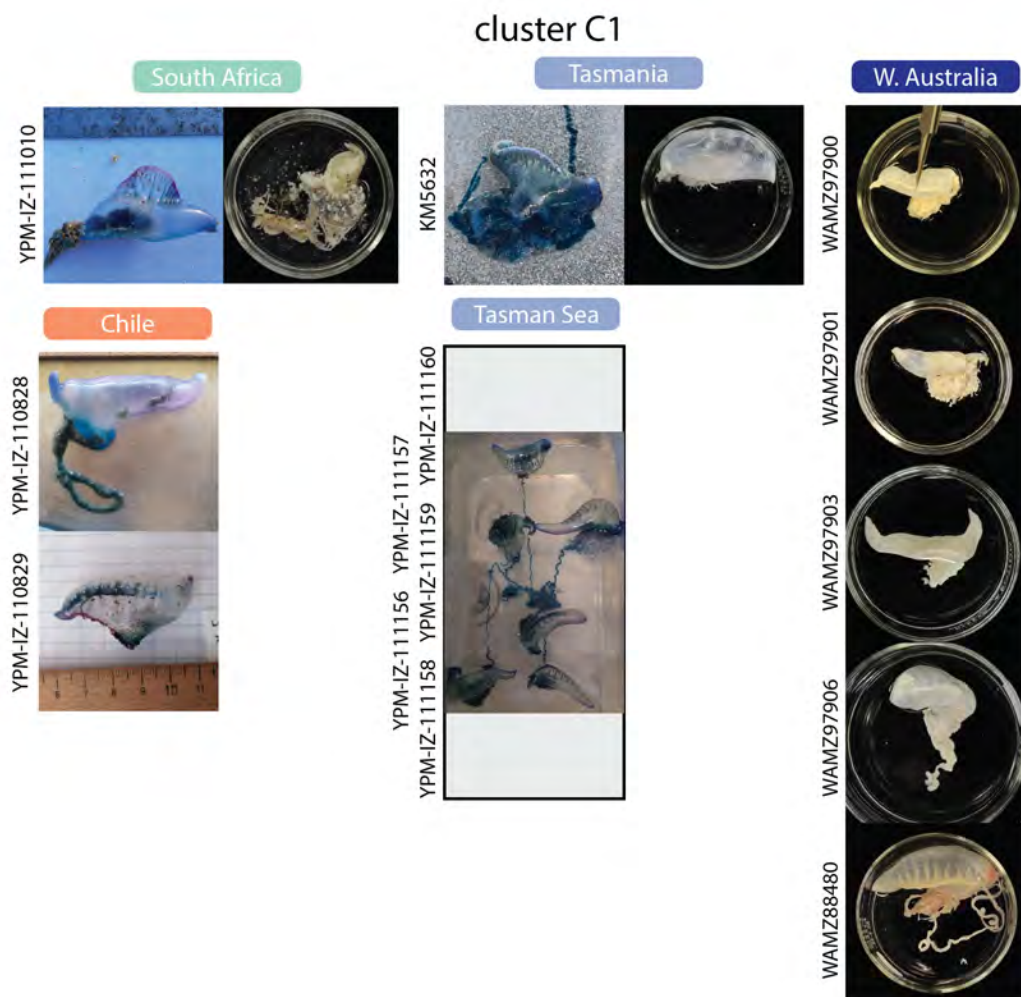


Figure 7: Specimen photos: cluster C1.

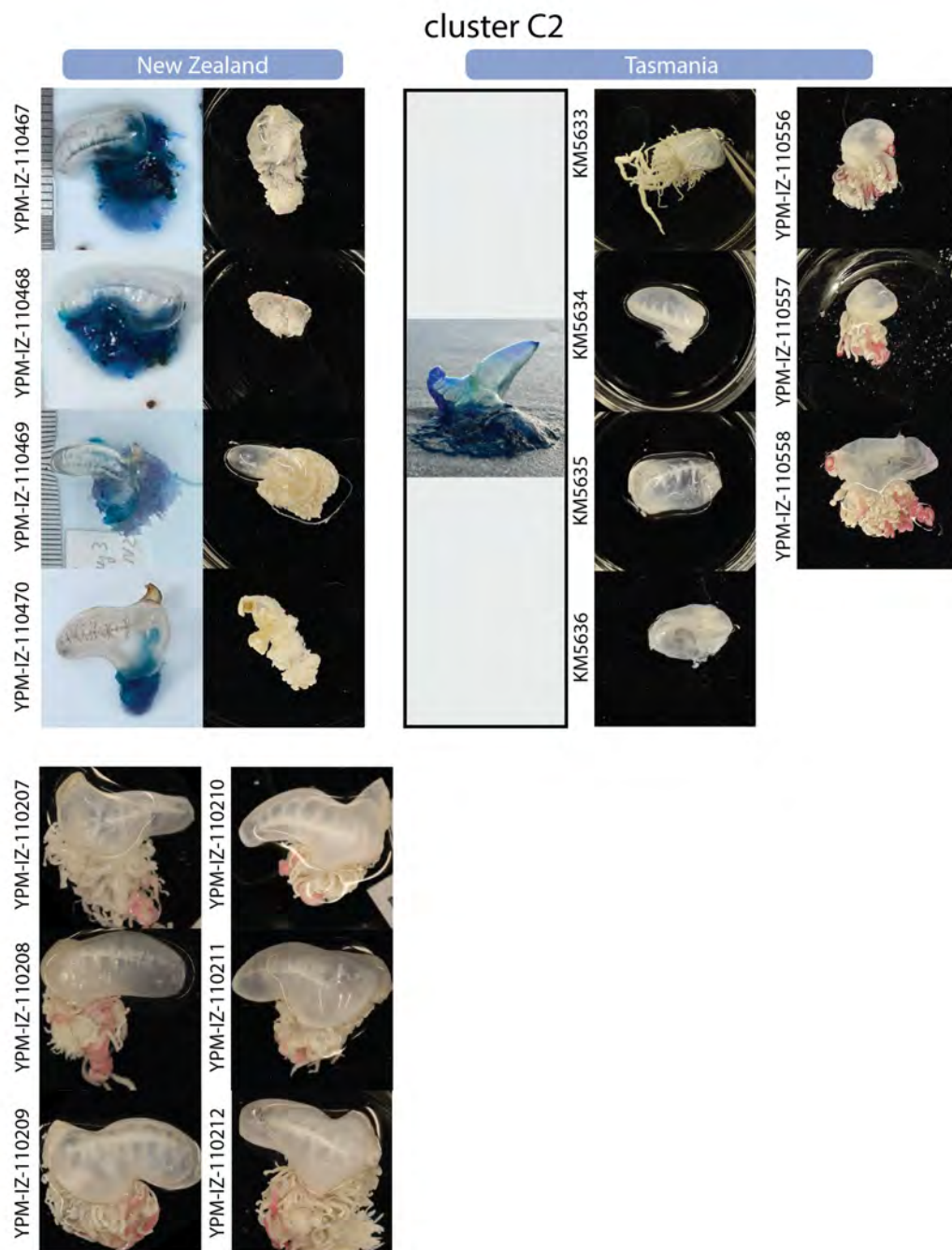


Figure 8: Specimen photos: cluster C2.