

Improving species distribution models of zoonotic marine parasites

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Table S1: *Pseudoterranova* spp. occurrence data.

Molecularly identified, georeferenced *Pseudoterranova* spp. occurrence data with including coordinates, identification method and references.

<i>Pseudoterranova krabbei</i>		<i>Pseudoterranova decipiens</i> A				
Host	Location	Longitude	Latitude	Reference	Marker	
<i>Haliocherus grypus</i>	NE Atlantic: Faxafloi Bay (Island)	-22.5	64.5	Paggi et al. 2000	Allozym	
	NE Atlantic: Faxafloi Bay (Island)	-22.5	64.5	Paggi et al. 1991	Allozym	
	NE Atlantic: Frøya Island (Norway)	8.5	63.5	Paggi et al. 1991	Allozym	
	NE Atlantic: Frøya Island (Norway)	8.5	63.5	Zhu et al. 2002	rDNA (ITS); SSCP	
<i>Phoca vitulina</i>	NE Atlantic: Masfjorden (Norway)	5.5	60.5	Paggi et al. 1991	Allozym	
<i>Gadus morhua</i>	NE Atlantic: Møre og Romsdal (Norway)	5.5	62.5	Paggi et al. 1991	Allozym	
	NE Atlantic: Faeroe Islands	-6.5	62.5	Paggi et al. 1991	Allozym	
	NE Atlantic: FAO 27 (Subarea IV: Iceland, Faroe grounds)	-4.5	62.5	Ferrantelli et al. 2015	rDNA (ITS)	
	NE Atlantic: FAO 27 (Subarea V: North Sea)	2.5	57.5	Ferrantelli et al. 2015	rDNA (ITS)	
<i>Melanogrammus aeglefinus</i>	NE Atlantic: Faeroe Islands	-6.5	62.5	Paggi et al. 1991	Allozym	
<i>Pollachius virens</i>	NE Atlantic: Faeroe Islands	-6.5	62.5	Paggi et al. 1991	Allozym	
<i>Hyppoglossoides Platessoides</i>	NE Atlantic: NE Scotland	-2.5	58.5	Paggi et al. 1991	Allozym	
<i>Psetta maxima</i>	NE Atlantic: NE Scotland	-2.5	58.5	Paggi et al. 1991	Allozym	
<i>Brosme brosme</i>	NE Atlantic: FAO 27 (Subarea IV: Iceland, Faroe grounds)	-4.5	62.5	Ferrantelli et al. 2015	rDNA (ITS)	
	NE Atlantic: FAO 27 (Subarea V: North Sea)	2.5	57.5	Ferrantelli et al. 2015	rDNA (ITS)	
<i>Chelidonychtis lucernus</i>	NE Atlantic: FAO 27 (Subarea IV: Iceland, Faroe grounds)	-4.5	62.5	Ferrantelli et al. 2015	rDNA (ITS)	
	NE Atlantic: FAO 27 (Subarea V: North Sea)	2.5	57.5	Ferrantelli et al. 2015	rDNA (ITS)	
<i>Pseudoterranova decipiens</i> (s.s.)		<i>Pseudoterranova decipiens</i> B				
Host	Location	Longitude	Latitude	Author	Marker	
<i>Halichoerus grypus</i>	NE Atlantic: Faxafloi Bay (Island)	-22.5	64.5	Paggi et al. 2000	Allozym	
	NE Atlantic: Faxafloi Bay (Island)	-22.5	64.5	Paggi et al. 1991	Allozym	
	NE Atlantic: Frøya Island (Norway)	8.5	63.5	Paggi et al. 1991	Allozym	
	NW Atlantic: Anticosti Island (Canada)	-61.5	49.5	Paggi et al. 1991	Allozym	
	NW Atlantic: Sable Island (Canada)	-59.5	43.5	Paggi et al. 1991	Allozym	
	NW Atlantic: St. Mary's Bay (Canada)	-66.5	44.5	Paggi et al. 1991	Allozym	
	NE Atlantic: Polish Baltic coastal Zone	18.5	55.5	Skrzypczak et al. 2014	RFLP, rDNA (ITS)	
	NW Atlantic: Anticosti Island (Canada)	-61.5	49.5	Bratney and Davidson 1996	rDNA, RFLP	
	NW Atlantic: Isle aux Livres, Quebec (Canada)	-68.5	48.5	Bratney and Davidson 1996	rDNA, RFLP	
NW Atlantic: Sable Island (Canada)	-59.5	43.5	Bratney and Davidson 1996	rDNA, RFLP		

	NW Atlantic: Cape Broyle (Newfoundland, Canada)	-52.5	46.5	Bratley and Davidson 1996	rDNA, RFLP
	NW Atlantic: Garden Cove (Newfoundland, Canada)	-54.5	47.5	Bratley and Davidson 1996	rDNA, RFLP
	NW Atlantic: SE Golf of St. Lawrence (Canada)	-61.5	46.5	Bratley and Davidson 1996	rDNA, RFLP
	NW Atlantic: (Newfoundland, Canada)	-54.5	46.5	Bratley and Stenson 1993	Allozym
	NW Atlantic: (Newfoundland, Canada)	-52.5	46.5	Bratley and Stenson 1993	Allozym
	NW Atlantic: (Newscotland, Canada)	-61.5	47.5	Bratley and Stenson 1993	Allozym
	NW Atlantic: (Newscotland, Canada)	-61.5	46.5	Bratley and Stenson 1993	Allozym
	NW Atlantic: (Quebec, Canada)	-61.5	49.5	Bratley and Stenson 1993	Allozym
	NW Atlantic: (Sable Island, Canada)	-59.5	43.5	Bratley and Stenson 1993	Allozym
<i>Phoca vitulina</i>	NW Atlantic: St. Bride's, Placentia Bay (Newfoundland, Canada)	-54.5	46.5	Paggi et al. 2000	Allozym
	NW Atlantic: Point May (Newfoundland, Canada)	-55.5	46.5	Paggi et al. 2000	Allozym
	NE Atlantic: Matre Masfjorden (Norway)	5.5	60.5	Paggi et al. 2000	Allozym
	NE Atlantic: Tjarno (Sweden)	11.5	58.5	Paggi et al. 1991	Allozym
	NE Atlantic: Husavik (Iceland)	-17.5	66.5	Paggi et al. 1991	Allozym
	NW Atlantic: Sable Island (Canada)	-59.5	43.5	Paggi et al. 1991	Allozym
	NW Atlantic: Point May (Canada)	-55.5	46.5	Paggi et al. 1991	Allozym
	NW Atlantic: St. Brides (Canada)	-54.5	46.5	Paggi et al. 1991	Allozym
	NW Atlantic: St. Marys Bay (Canada)	-66.5	44.5	Paggi et al. 1991	Allozym
	NE Atlantic: Polish Baltic coastal Zone	18.5	55.5	Skrzypczak et al. 2014	RFLP, rDNA (ITS)
	NE Pacific: Rockaway Beach (California, USA)	-122.5	37.5	Nadler et al. 2005	rDNA (LSU, ITS)
	NE Pacific: Richardson Bay (California, USA)	-122.5	37.5	Nadler et al. 2005	rDNA (LSU, ITS)
	NW Atlantic: (Newfoundland, Canada)	-54.5	46.5	Zhu et al. 2002	rDNA (ITS); SSCP
	NW Atlantic: Point May (Canada)	-55.5	46.5	Bratley and Davidson 1996	rDNA, RFLP
	NW Atlantic: St. Marys Bay (Newfoundland, Canada)	-53.5	46.5	Bratley and Davidson 1996	rDNA, RFLP
	NW Atlantic: (Newfoundland, Canada)	-54.5	46.5	Bratley and Stenson 1993	Allozym
	NW Atlantic: (Newfoundland, Canada)	-53.5	46.5	Bratley and Stenson 1993	Allozym
<i>Phoca vitulina richardsii</i>	NE Pacific: Crofton Bay (Canada)	-123.5	48.5	Paggi et al. 1998	Allozym
<i>Cystophora cristata</i>	NW Atlantic: Conception Bay (Canada)	-52.5	47.5	Paggi et al. 1991	Allozym
	NW Atlantic: (Newfoundland, Canada)	-51.5	48.5	Bratley and Stenson 1993	Allozym
	NW Atlantic: (Newfoundland, Canada)	-51.5	49.5	Bratley and Stenson 1993	Allozym
<i>Boreogadus saida</i>	NE Atlantic: Grady Harbour (Canada)	-56.5	53.5	Paggi et al. 1991	Allozym
<i>Brosme brosme</i>	NE Atlantic: Husavik (Iceland)	-17.5	66.5	Paggi et al. 1991	Allozym
	NE Atlantic: FAO 27 (Subarea V: North Sea)	2.5	57.5	Ferrantelli et al. 2015	rDNA (ITS)
<i>Gadus morhua</i>	NE Atlantic: Møre og Romsdal (Norway)	5.5	62.5	Paggi et al. 1991	Allozym

	NE Atlantic: Husavik (Iceland)	-17.5	66.5	Paggi et al. 1991	Allozym
	NW Atlantic: Hermitage Bay (Canada)	-56.5	47.5	Paggi et al. 1991	Allozym
	NW Atlantic: Conception Bay (Canada)	-52.5	47.5	Paggi et al. 1991	Allozym
	NW Atlantic: Passamaquoddy Bay (Canada)	-66.5	45.5	Paggi et al. 1991	Allozym
	NE Atlantic: FAO 27 (Subarea V: North Sea)	2.5	57.5	Ferrantelli et al. 2015	rDNA (ITS)
	NE Atlantic: Eastern Bornholm (Baltic Sea)	15.5	55.5	Mehrdana et al. 2014	rDNA (ITS)
	NE Atlantic: Eastern Bornholm (Baltic Sea), subdivision 25	15.5	54.5	Buchmann and Kania 2012	rDNA (ITS)
	NW Atlantic: South Coast Newfoundland (Canada)	-55.5	45.5	Bratney and Davidson 1996	rDNA, RFLP
	NW Atlantic: Scotian Shelf (Newscotland, Canada)	-61.5	43.5	Bratney and Davidson 1996	rDNA, RFLP
	NW Atlantic: Placentia Bay (Newfoundland, Canada)	-54.5	46.5	Bratney and Davidson 1996	rDNA, RFLP
	NE Atlantic: (Baltic Sea)	16.5	55.5	Zuo et al. 2016	rDNA (ITS)
<i>Gadus ogac</i>	NW Atlantic: Come by Chance (Canada)	-54.5	47.5	Paggi et al. 1991	Allozym
<i>Pollachius virens</i>	NW Atlantic: Passamaquoddy Bay (Canada)	-66.5	45.5	Paggi et al. 1991	Allozym
<i>Myoxocephalus scorpius</i>	NW Atlantic: Point May (Canada)	-55.5	46.5	Paggi et al. 1991	Allozym
	NW Atlantic: NE Coast, Newfoundland (Canada)	-52.5	50.5	Bratney and Davidson 1996	rDNA, RFLP
	NW Atlantic: S Coast, Newfoundland (Canada)	-53.5	45.5	Bratney and Davidson 1996	rDNA, RFLP
<i>Hypoglossoides Platessoides</i>	NE Atlantic: NE Scotland	-2.5	58.5	Paggi et al. 1991	Allozym
<i>Onchorhynchus gorbuscha</i>	NE Pacific: FAO 67	-153.5	47.5	Bilska-Zajac et al. 2016	Genomic DNA
	N Atlantic: N North Sea: Tampen	-1.5	62.5	Klapper et al. 2016	rDNA (ITS)
	N Atlantic: East Greenland	-39.5	63.5	Klapper et al. 2016	rDNA (ITS)
	NE Atlantic: Barents Sea Sea	16.5	74.5	Klapper et al. 2016	rDNA (ITS)
<i>Chelidonyctis lucernus</i>	NE Atlantic: FAO 27 (Subarea V: North Sea)	2.5	57.5	Ferrantelli et al. 2015	rDNA (ITS)
<i>Osmerus eperlanus</i>	NE Atlantic: Cuxhaven (Germany; North Sea)	8.5	53.5	Kuhn et al. 2013	rDNA (ITS)
	NE Atlantic: Elbe Estuary (Germany; North Sea)	8.5	53.5	Zhu et al. 2002	rDNA (ITS); SSCP
<i>Macrourus berglax</i>	N Atlantic: East Greenland Sea	-36.5	64.5	Kellermanns et al. 2007	rDNA (ITS)
<i>Zalophus californianus</i>	NE Pacific: Muir Beach (California, USA)	-122.5	37.5	Nadler et al. 2005	rDNA (LSU, ITS)
	NE Pacific: Monterey (California, USA)	-122.5	36.5	Nadler et al. 2005	rDNA (LSU, ITS)
	NE Pacific: Crofton Bay (Canada)	-123.5	48.5	Paggi et al. 1998	Allozym
<i>Eumetopias jubatus</i>	NE Pacific: Seward (Alaska, USA)	-149.5	59.5	Nadler et al. 2005	rDNA (LSU, ITS)
<i>Mirounga angustirostris</i>	NE Pacific: Santa Cruz (California, USA)	-122.5	36.5	Nadler et al. 2005	rDNA (LSU, ITS)
<i>Enhydra lutris</i>	NE Pacific: Monterey (California, USA)	-122.5	36.5	Nadler et al. 2005	rDNA (LSU, ITS)
<i>Reinhardtius hypoglossoides</i>	NW Atlantic: Saguenay, Quebec (Canada)	-67.5	49.5	Bratney and Davidson 1996	rDNA, RFLP
<i>Hemiterpeter americanus</i>	NW Atlantic: Grand Manan, New Brunswick (Canada)	-66.5	45.5	Bratney and Davidson 1996	rDNA, RFLP
<i>Hypoglossus hypoglossus</i>	NW Atlantic: Labrador (Canada)	-53.5	53.5	Bratney and Davidson 1996	rDNA, RFLP
	NW Atlantic: Labrador (Canada)	-53.5	52.5	Bratney and Davidson 1996	rDNA, RFLP

<i>Pseudoterranova bulbosa</i>	<i>Pseudoterranova decipiens</i> C				
Host	Location	Longitude	Latitude	Author	Marker
<i>Erignathus barbatus</i>	NE Atlantic: Hopen Island (Norway)	25.5	76.5	Paggi et al. 1991	Allozym
	NE Atlantic: Finnmark (Norway)	24.5	71.5	Paggi et al. 1991	Allozym
	NW Atlantic: Makkovic (Canada)	-59.5	55.5	Paggi et al. 1991	Allozym
	N Pacific: Otaru Sea (Japan)	140.5	43.5	Mattiucci et al. 1998	Allozym
	NW Atlantic: Arviat (Hudson Bay)	-94.5	61.5	Karpiej et al. 2014	rDNA (ITS)
	NW Atlantic: Sanikiluaq (Hudson Bay)	-79.5	56.5	Karpiej et al. 2014	rDNA (ITS)
	NW Atlantic: (Newfoundland, Canada)	-55.5	51.5	Zhu et al. 2002	rDNA (ITS); SSCP
	NW Atlantic: Greenspond (Newfoundland, Canada)	-53.5	48.5	Bratney and Davidson 1996	rDNA, RFLP
	NW Atlantic: Noddy Bay (Newfoundland, Canada)	-55.5	51.5	Bratney and Davidson 1996	rDNA, RFLP
	NW Atlantic: Straitsview (Newfoundland, Canada)	-56.5	51.5	Bratney and Davidson 1996	rDNA, RFLP
	NW Atlantic: Black Tickle (Labrador, Canada)	-55.5	53.5	Bratney and Davidson 1996	rDNA, RFLP
	NW Atlantic: Labrador (Newfoundland, Canada)	-55.5	51.5	Bratney and Stenson 1993	Allozym
	NW Atlantic: Labrador (Newfoundland, Canada)	-53.5	53.5	Bratney and Stenson 1993	Allozym
	NW Pacific: Otaru Bay (Japan)	140.5	43.5	Paggi et al. 1998	Allozym
<i>Pusa hispida</i>	NW Atlantic: Arviat (Hudson Bay)	-94.5	61.5	Karpiej et al. 2014	rDNA (ITS)
<i>Hyppoglossoides Platessoides</i>	NE Atlantic: Barents Sea	21.5	73.5	Paggi et al. 1991	Allozym
	NW Atlantic: Labrador (Canada)	-55.5	55.5	Bratney and Davidson 1996	rDNA, RFLP
	NW Atlantic: Labrador (Canada)	-55.5	54.5	Bratney and Davidson 1996	rDNA, RFLP
	NW Atlantic: Labrador (Canada)	-61.5	56.5	Bratney and Davidson 1996	rDNA, RFLP
	NE Atlantic: N Norwegian Waters, Barents Sea	22.5	71.5	Bristow and Berland 1992	morphological, Allozym
	NE Atlantic: N Norwegian Waters, Barents Sea	21.5	71.5	Bristow and Berland 1992	morphological, Allozym
	NE Atlantic: N Norwegian Waters, Barents Sea	18.5	71.5	Bristow and Berland 1992	morphological, Allozym
	NE Atlantic: N Norwegian Waters, Barents Sea	17.5	70.5	Bristow and Berland 1992	morphological, Allozym
	NE Atlantic: N Norwegian Waters, Barents Sea	27.5	72.5	Bristow and Berland 1992	morphological, Allozym
	NE Atlantic: N Norwegian Waters, Barents Sea	29.5	73.5	Bristow and Berland 1992	morphological, Allozym
	NE Atlantic: N Norwegian Waters, Barents Sea	32.5	73.5	Bristow and Berland 1992	morphological, Allozym
<i>Reinhardtius hyppoglossoides</i>	NW Atlantic: Davis Inlet (Canada)	-60.5	55.5	Paggi et al. 1991	Allozym
	NE Atlantic: Barents Sea	13.5	73.5	Karpiej et al. 2013	rDNA (ITS)
	NW Atlantic: Labrador (Canada)	-53.5	55.5	Bratney and Davidson 1996	rDNA, RFLP
	NW Atlantic: Saguenay, Quebec (Canada)	-67.5	49.5	Bratney and Davidson 1996	rDNA, RFLP
<i>Delphinapterus leucas</i>	NW Atlantic: Kuujuarapic (Eastern Hudson Bay)	-77.5	55.5	Najda et al. 2015	RFLP, rDNA (ITS)

	NW Atlantic: Kangiqsujaq (Hudson Street)	-71.5	61.5	Najda et al. 2015	RFLP, rDNA (ITS)
	NW Atlantic: Quaqtaq (Hudson Street)	-69.5	61.5	Najda et al. 2015	RFLP, rDNA (ITS)
<i>Gadus morhua macrocephalus</i>	NW Pacific: Iwanai (Japan)	140.5	42.5	Paggi et al. 1998	Allozym
	NE Pacific: Gulf of Anadyr (Bering Sea)	-179.5	65.5	Paggi et al. 1998	Allozym
<i>Myoxocephalus quadricornis</i>	NE Pacific: Gulf of Anadyr (Bering Sea)	-179.5	65.5	Paggi et al. 1998	Allozym
<i>Hippoglossus hippoglossus</i>	NE Pacific: Gulf of Anadyr (Bering Sea)	-179.5	65.5	Paggi et al. 1998	Allozym
<i>Pseudoterranova azarasi</i>					
<i>Pseudoterranova decipiens</i> D					
Host	Location	Longitude	Latitude	Author	Marker
<i>Eumetopias jubatus</i>	NW Pacific: Iwanai (Japan)	140.5	42.5	Mattiuci et al. 1998	Allozym
	NW Pacific: Rishiri Island (Japan)	141.5	45.5	Mattiuci et al. 1998	Allozym
	NW Pacific: Iwanai (Japan)	140.5	42.5	Liu et al. 2015	DNA
	NW Pacific: Iwanai (Japan)	140.5	42.5	Zhu et al. 2002	rDNA (ITS); SSCP
	NW Pacific: Rishiri Island (Japan)	141.5	45.5	Paggi et al. 1998	Allozym
	NW Pacific: Otaru Bay (Japan)	140.5	43.5	Paggi et al. 1998	Allozym
	NW Pacific: Iwanai (Japan)	140.5	42.5	Paggi et al. 1998	Allozym
<i>Gadus morhua macrocephalus</i>	NW Pacific: Iwanai (Japan)	140.5	42.5	Mattiuci et al. 1998	Allozym
	NW Pacific	143.5	33.5	Arizono et al. 2011	rDNA (ITS), mtDNA (cox1, NADH)
	NW Pacific: Iwanai (Japan)	140.5	42.5	Paggi et al. 1998	Allozym
	NE Pacific: Gulf of Anadyr (Bering Sea)	-179.5	65.5	Paggi et al. 1998	Allozym
<i>Erignathus barbatus</i>	NW Pacific: Otaru Bay (Japan)	140.5	43.5	Paggi et al. 1998	Allozym
<i>Hippoglossus hippoglossus</i>	NE Pacific: Gulf of Anadyr (Bering Sea)	-179.5	65.5	Paggi et al. 1998	Allozym
<i>Pseudoterranova cattani</i>					
Host	Location	Longitude	Latitude	Author	Marker
<i>Xystreurys rasile</i>	SW Atlantic: Necochea (Argentina)	-58.5	-38.5	Timi et al. 2014	genomic DNA
<i>Paralichthys isosceles</i>	SW Atlantic: Necochea (Argentina)	-58.5	-38.5	Timi et al. 2014	genomic DNA
	SW Atlantic: Patagonian coast (Argentina)	-61.5	-42.5	Hernández-Orts et al. 2013a	mtDNA (cox1)
		-62.5	-42.5	Hernández-Orts et al. 2013a	mtDNA (cox1)
		-61.5	-47.5	Hernández-Orts et al. 2013a	mtDNA (cox1)
		-64.5	-47.5	Hernández-Orts et al. 2013a	mtDNA (cox1)
<i>Paralichthys patagonicus</i>	SW Atlantic: Necochea (Argentina)	-58.5	-38.5	Alarcos et al. 2016	genomic DNA
	SW Atlantic: Quequen (Argentina)	-58.5	-38.5	Timi et al. 2014	rDNA (ITS), mtDNA (cox2)
? (<i>Ceviche</i>)	SE Pacific: Chile (Santiago) (?)	-72.5	-33.5	Weitzel et al. 2015	rDNA (ITS)

<i>Otaria flavescens</i>	SE Pacific: Concepcion (Chile)	-73.5	-36.5	Timi et al. 2014	rDNA (ITS), mtDNA (cox2)
	SW Atlantic: Patagonian coast (Argentina)	-67.5	-49.5	Timi et al. 2014	rDNA (ITS), mtDNA (cox2)
	SW Atlantic: Quequen (Argentina)	-58.5	-38.5	Timi et al. 2014	rDNA (ITS), mtDNA (cox2)
	SW Atlantic: Patagonian coast (Argentina)	-63.5	-40.5	Hernández-Orts et al. 2013b	morphological
<i>Arctocephalus australis</i>	SW Atlantic: Patagonian coast (Argentina)	-65.5	-43.5	Hernández-Orts et al. 2013b	morphological
		-63.5	-40.5	Hernández-Orts et al. 2013b	morphological
<i>Pseudoperca semifasciata</i>	SW Atlantic: Praia do Mar Grosso, Sao Jose do Norte (Brazil)	-51.5	-31.5	Jacobus et al. 2016	rDNA (ITS), mtDNA (cox2)
	SW Atlantic: Mar del Plata (Argentina)	-58.5	-38.5	Timi et al. 2014	rDNA (ITS), mtDNA (cox2)
<i>Acanthistius patachonicus</i>	SW Atlantic: Mar del Plata (Argentina)	-57.5	-38.5	Timi et al. 2014	rDNA (ITS), mtDNA (cox2)
		-59.5	-39.5	Timi et al. 2014	rDNA (ITS), mtDNA (cox2)
		-60.5	-40.5	Timi et al. 2014	rDNA (ITS), mtDNA (cox2)
		-61.5	-42.5	Hernández-Orts et al. 2013a	mtDNA (cox1)
		-62.5	-42.5	Hernández-Orts et al. 2013a	mtDNA (cox1)
<i>Percophis brasiliensis</i>	SW Atlantic: Patagonian coast (Argentina)	-61.5	-47.5	Hernández-Orts et al. 2013a	mtDNA (cox1)
		-64.5	-47.5	Hernández-Orts et al. 2013a	mtDNA (cox1)
		-61.5	-42.5	Hernández-Orts et al. 2013a	mtDNA (cox1)
		-62.5	-42.5	Hernández-Orts et al. 2013a	mtDNA (cox1)
		-61.5	-47.5	Hernández-Orts et al. 2013a	mtDNA (cox1)
<i>Prionotus nudigula</i>	SW Atlantic: Patagonian coast (Argentina)	-64.5	-47.5	Hernández-Orts et al. 2013a	mtDNA (cox1)
		-61.5	-42.5	Hernández-Orts et al. 2013a	mtDNA (cox1)
		-62.5	-42.5	Hernández-Orts et al. 2013a	mtDNA (cox1)
		-61.5	-47.5	Hernández-Orts et al. 2013a	mtDNA (cox1)
<i>Otaria byronia</i> (= <i>Otaria flavescens</i>)	SE Pacific: Concepcion (Chile)	-73.5	-36.5	Zhu et al. 2002	rDNA (ITS); SSCP
	SE Pacific: Between Cobquecura and Chiloe (Chile)	-72.5	-35.5	George-Nascimento and Urrutia 2000	morphological
	SE Pacific: Between Cobquecura and Chiloe (Chile)	-72.5	-35.5	George-Nascimento and Llanos 1995	morphological, Allozym
<i>Merluccius gayi</i>	SE Pacific: Concepcion (Chile)	-73.5	-36.5	George-Nascimento and Llanos 1995	morphological, Allozym
<i>Genypterus maculatus</i>	SE Pacific: Concepcion (Chile)	-73.5	-36.5	George-Nascimento and Llanos 1995	morphological, Allozym
<i>Paralichthys microps</i>	SE Pacific: Concepcion (Chile)	-73.5	-36.5	George-Nascimento and Llanos 1995	morphological, Allozym

Pseudoterranova decipiens E

Host	Location	Longitude	Latitude	Author	Marker
<i>Notothenia coriiceps</i>	Southern Ocean: South Shetland Islands (Antarctic)	-59.5	-62.5	Timi et al. 2014	rDNA (ITS), mtDNA (cox2)
<i>Leptonychotes weddellii</i>	Southern Ocean: South Shetland Islands (Antarctic)	-60.5	-62.5	Rengifo-Herrera et al. 2014	mtDNA (cox2)
	Southern Ocean: Weddell Sea (Antarctic)	-51.5	-64.5	Bullini et al. 1997	Allozym
<i>Caenocephalus aceratus</i>	Southern Ocean: South Shetland Islands (Antarctic)	-60.5	-62.5	Zhu et al. 2002	rDNA (ITS); SSCP
<i>Macrourus whitsoni</i>	Southern Ocean: King George and Elephant Island (Antarctic)	-56.5	-61.5	Münster et al. 2016	rDNA (ITS)

Table S2: Environmental descriptors and their contribution to the models.

Variable contribution of the environmental descriptors used in the MaxEnt modelling approaches (LD-model and DHD-model). LD = land distance, DHD = definitive host distance, Salt = salinity, PP = primary production, SST = sea surface temperature (annual mean), depth = bottom depth.

Species	% LD/DHD		% Salt		% PP		% SST		% Depth	
	LD	DHD	LD	DHD	LD	DHD	LD	DHD	LD	DHD
<i>P. azarasi</i>	96.9	57.3	3.0	26.4	0.1	0	0.0	0.3	0.0	16
<i>P. bulbosa</i>	8.8	68.2	3.2	0.1	1.9	7.7	30.8	5.1	55.3	18.9
<i>P. cattani</i>	48.4	75.6	16.2	4.7	16.8	12.6	11.5	1.1	7.1	6
<i>P. decipiens E</i>	2.4	33.2	11.1	20.5	2.3	1.1	83.0	34.3	1.2	10.9
<i>P. decipiens (s.s.)</i>	4.7	53.4	0.1	1.5	21.5	25.2	29.1	8.8	44.6	10.8
<i>P. krabbei</i>	0.5	68.4	0.9	17	0.6	1.1	30.3	1.9	67.7	11.6

Table S3: Model overlap of parasites and definitive hosts.

Schoener's D values calculated for *Pseudoterranova* spp. and their respective hosts. Black outlines and bold letters indicate a host-parasite relationship, green indicates a high, yellow an intermediate and red a low D-value.

	<i>P. azarasi</i>	<i>P. bulbosa</i>	<i>P. cattani</i>	<i>P. decipiens (s.s.)</i>	<i>P. krabbei</i>
<i>A. australis</i>	0.029	0.011	0.179	0.054	0.010
<i>C. cristata</i>	0.144	0.220	0.194	0.164	0.045
<i>E. barbatus</i>	0.259	0.543	0.058	0.071	0.056
<i>E. jubatus</i>	0.035	0.039	0.154	0.121	0.009
<i>H. grypus</i>	0.024	0.009	0.059	0.450	0.011
<i>M. angustirostris</i>	0.008	0.001	0.146	0.015	0.001
<i>O. flavescens</i>	0.116	0.034	0.328	0.055	0.056
<i>P. vitulina</i>	0.019	0.016	0.096	0.383	0.007
<i>P. hispida</i>	0.007	0.018	0.004	0.208	0.001
<i>Z. californianus</i>	0.001	0.000	0.103	0.008	0.000

Table S4: Niche comparison of *Pseudoterranova* spp. and their definitive hosts.

Niche comparison of *Pseudoterranova bulbosa*, *P. cattani* and *P. decipiens* (s.s.) and their respective hosts. Expansion is the proportion of the parasite's niche that does not overlap with the host niche, stability is the niche overlap and unfilling is the proportion of the host niche that does not overlap with the parasite niche.

	expansion	stability	unfilling
<i>P. bulbosa</i> x host			
<i>P. bulbosa</i> x <i>E. barbatus</i>	0.1668111	0.8331889	0.1586211
<i>P. bulbosa</i> x <i>P. hispida</i>	0.5422238	0.4577762	0.0000000
<i>P. cattani</i> x host			
<i>P. cattani</i> x <i>A. australis</i>	0.5497801	0.4502199	0.0000000
<i>P. cattani</i> x <i>O. flavescens</i>	0.0947725	0.9052274	0.1398201
<i>P. decipiens</i> (s.s.) x host			
<i>P. decipiens</i> (s.s.) x <i>C. cristata</i>	0.0596914	0.9403085	0.1584003
<i>P. decipiens</i> (s.s.) x <i>H. grypus</i>	0.0683955	0.9316044	0.0075531
<i>P. decipiens</i> (s.s.) x <i>M. angustirostris</i>	0.0523107	0.9476893	0.3131445
<i>P. decipiens</i> (s.s.) x <i>P. vitulina</i>	0.0840449	0.9159550	0.0520653
<i>P. decipiens</i> (s.s.) x <i>P. hispida</i>	0.3395640	0.6604360	0.1260158
<i>P. decipiens</i> (s.s.) x <i>Z. californianus</i>	0.0451382	0.9548617	0.4048093

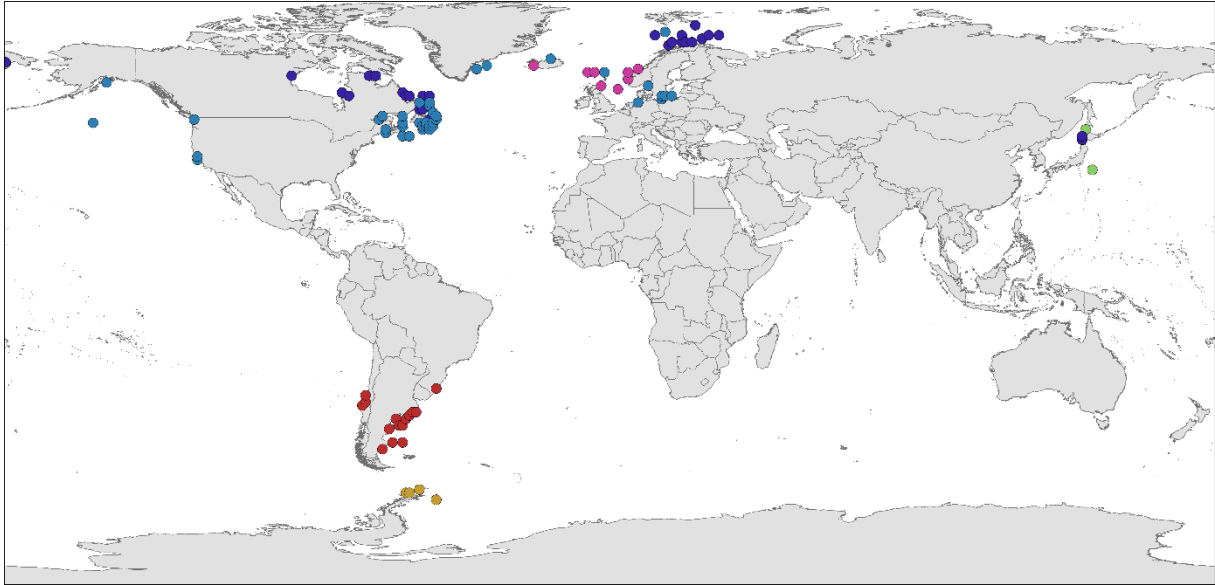


Figure S1: Map of the reported occurrences of *Pseudoterranova* spp.

Occurrences of *Pseudoterranova decipiens* (s.s.) (n = 46; light blue), *P. bulbosa* (n = 31, dark blue), *P. cattani* (n = 15, red), *P. krabbei* (n = 8, pink), *P. azarasi* (n = 5, green) and *P. decipiens* E (n = 4, yellow) used for modelling (WGS-84 projection).

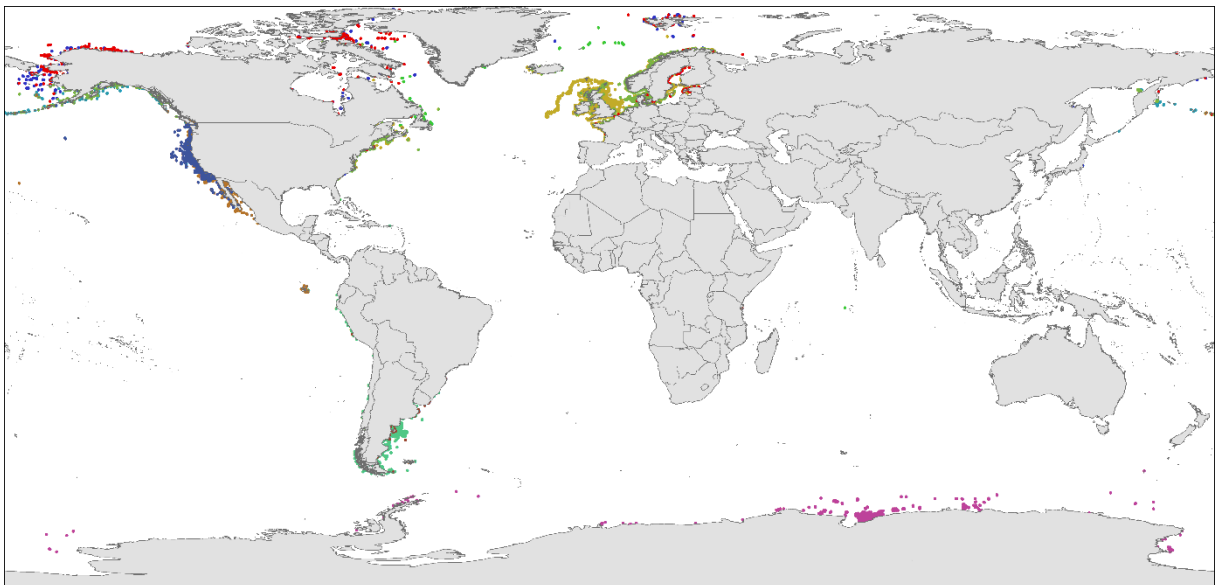


Figure S2: Map of the reported occurrences of the definitive hosts of *Pseudoterranova* spp.

Occurrences of the recorded host species of *Pseudoterranova azarasi* (*Eumetopias jubatus* (n = 919, turquoise), *Zalophus californianus* (n = 4619, ochre), *P. bulbosa* (*Erignathus barbatus* (n = 573, royal blue), *Pusa hispida* (n = 762, red)), *P. cattani* (*Arctocephalus australis* (n = 42, brown), *Otaria flavescens* (n = 2460, mint green)), *P. decipiens* E (*Leptonychotes weddellii* (n = 5000, pink), *P. decipiens* (s.s.) (*Cystophora cristata* (n = 95, green), *Halichoerus grypus* (n = 11317, yellow), *Mirounga angustirostris* (n = 800, blue), *Phoca vitulina* (n = 7368, green), *P. hispida*, *Z. californianus*) and *P. krabbei* (*H. grypus*, *P. vitulina*) (WGS-84 projection).

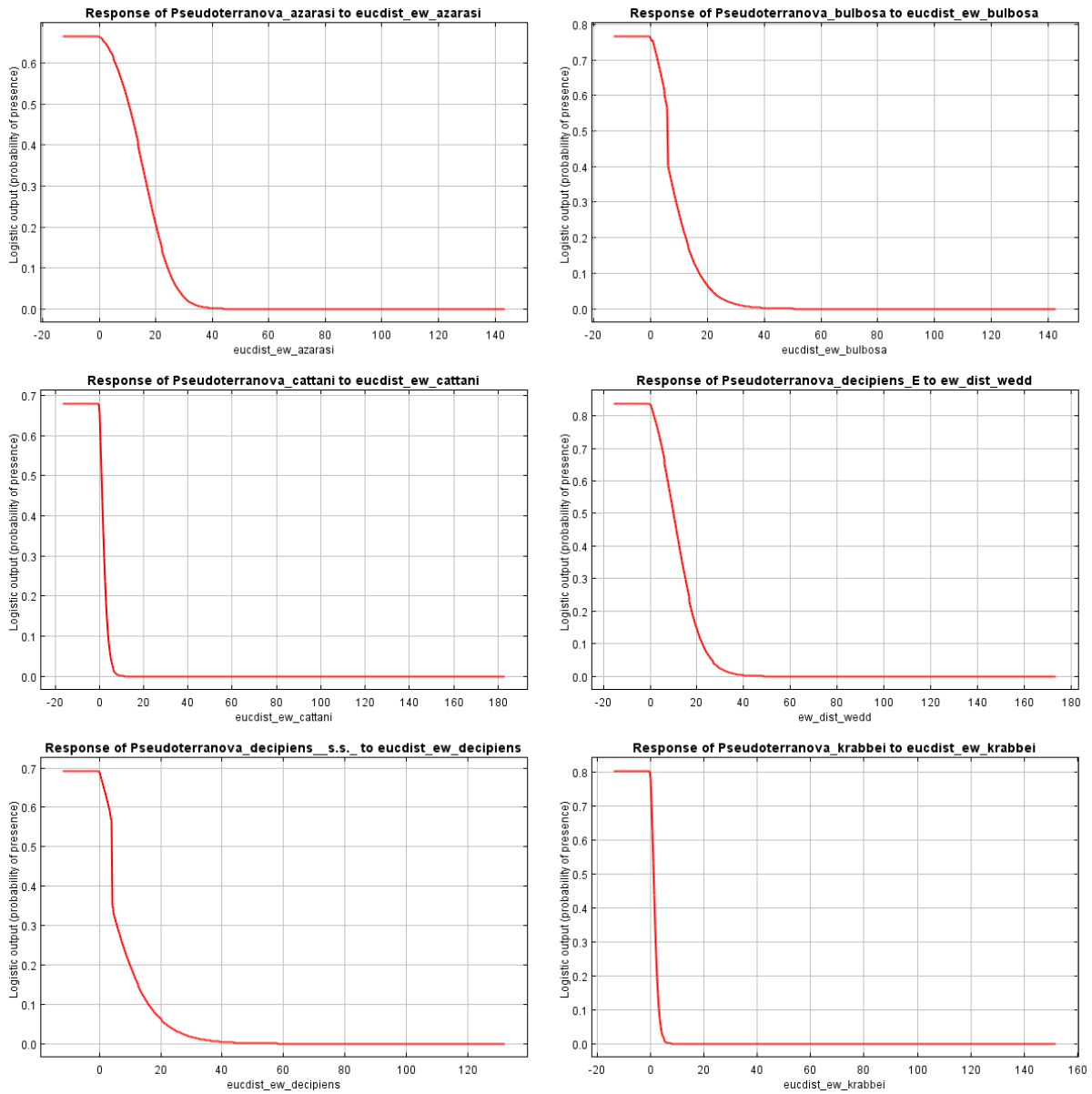


Figure S3: Response curves of definitive host distance.

MaxEnt response curves of DHD for *Pseudoterranova azarasi*, *P. bulbosa*, *P. decipiens E*, *P. decipiens* (s.s.) and *P. krabbei*. Probability of presence plotted against the Euclidean distance of the respective definitive host (DHD in decimal degree).

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