Use of SCN features: No

Max learning objects: 5000 objects/class Strategy N° 2

Actual Values

NL 2021 Selected Samples prediction using NL 2021 training set, Learning with all classes present in the selected samples, with extra training categories, No Calanoida (civ-vi), Cyclopoida, Zooplankton classes in learning set

Confusion Matrix – In percent of Actual Value

											(Confu	ısior	ı Ma	trix -	- In	perce	ent o	of Act	tual \	Value	9											
Acartia spp.	72%	<1%	7%	8%	3%			7%		<1%		<1%				<1%	<1%		<1%							<	:1%	<1%		<1%	<1%		
Evadne spp.		92%	<1%	<1%	<1%	<1%	2%	<1%						<1%	<1%	<1%			<1%							2	2%	1%					
Temora spp.	14%	2%	54%	9%	2%		<1%	13%				<1%					<1%									2	2%	3%			<1%		
Pseudocalanus spp.	20%		14%	57%	<1%			8%				<1%					<1%			<1%								<1%		<1%			
Oithona spp.	11%	1%	<1%		81%	<1%		3%			<1%					3%										<	1%						
Bryozoa (larvae)		32%				52%	<1%	2%			1%	<1%		2%		1%			<1%							1	1%	8%					
Podon/Pleopsis spp.	1%	11%	15%	<1%		<1%	12%	3%								<1%	2%		15%							1	4%	25%					
Calanoida (ci-ciii)	11%	8%	10%	6%	4%	<1%	5%	23%									4%		2%	<1%						3	3%	24%					
Oikopleura spp.			2%	3%	2%	<1%		2%	63%		<1%					23%		<1%		2%					<	1%				<1%			
Centropages spp.	61%		9%	1%					1%	24%										1%					1%					1%			
Echinodermata (larvae)	2%				20%			2%	2%		18%					46%			2%							2	2%	4%			2%		
Harpacticoida- epibenthic	19%		4%	9%	9%			13%				38%																4%		4%			
Hydrozoa (medusa)		21%				4%	4%	2%			4%		2%		2%	19%				2%		11%	2%			1	3%	2%	11%				
Gastropoda (larvae/Limacina)		9%					11%							62%	9%				9%									2%					
Bivalvia (larvae)						5%	5%							16%	75%																		
Fritillaria spp.					12%				3%		3%					82%																	
Microcalanus spp.		6%	3%	10%				23%				3%					23%		6%							3	3%	23%					
Chaetognatha									29%							4%		61%	4%	4%													
Polychaeta (larvae)	5%	5%	5%		10%														45%							1	0%	15%	5%				
Calanus spp.	7%			14%																79%													
Eurytemora spp.	50%		20%	30%																													
Aglantha spp. (medusa)									11%													67%	11%						11%				
Oncaeidae spp.	17%			17%	17%			17%				33%																					
Sarsia spp. (medusa)																25%							25%			2	5%		25%				
Ostracoda						50%																						50%					
Tortanus spp.	50%																								50%								
Decapoda-non brachyura (larvae)																				100%													Dec
	Acart	Evan, 500.	remo,	PSEU 500.	Oith Oith Cocalanu	Bryo.	Podo, lane	Calan Pleops	Oikap Toida (ci.	Centrol Citis Sp.	Chin Dages S	Harpa Odermara	Hydra Clicoida Clanas	Castle Collection	Sival, opoda (la sa) Thic	Siglandelli	Micro Maria Spp.	Char Calanus	Polyle Spp.	Calando (la Chaeta (la	Cury, Sp.	Aglantha Sp.	Acaeidae St. (medus	OS _{ITA} Spp. (1), Sp. (1),	Tortanus (Tedusa)	Decapool	Ciripe	Copepo dia (lane brachyur	Obelia (nau)	Euphal Sp. (M.	Euphalisiacea (Colusa)	isiacea (nau)	Viij
																	od Val												"Nat	"		tra ining sses	

Classification Report Matrix max 5000 Jeanning objects per class

ma	ax 5000 lea	arning obje	ects per clas	SS
	precision	recall	f1-score	
Acartia spp. (n=2490-train=5000)	0.77	0.72	0.74	
Evadne spp. (n=1931-train=2845)	0.91	0.92	0.92	
Temora spp. (n=1416-train=5000)	0.66	0.54	0.60	
Pseudocalanus spp. (n=1044-train=4552)	0.63	0.57	0.60	
Oithona spp. (n=345-train=1409)	0.66	0.81	0.73	
Bryozoa (larvae) (n=248-train=119)	0.91	0.52	0.66	1.
Podon/Pleopsis spp. (n=230-train=201)	0.31	0.12	0.17	
Calanoida (ci-ciii) (n=130-train=3713)	0.06	0.23	0.09	
Oikopleura spp. (n=115-train=761)	0.86	0.63	0.73	
Centropages spp. (n=88-train=40)	0.95	0.24	0.38	
Echinodermata (larvae) (n=50-train=276)	0.53	0.18	0.27	0.
Harpacticoida- epibenthic (n=47-train=136)	0.55	0.38	0.45	
Hydrozoa (medusa) (n=47-train=21)	1.00	0.02	0.04	
Gastropoda (larvae/Limacina) (n=47-train=110)	0.55	0.62	0.58	
Bivalvia (larvae) (n=44-train=71)	0.73	0.75	0.74	0.
Fritillaria spp. (n=34-train=3447)	0.23	0.82	0.36	
Microcalanus spp. (n=31-train=80)	0.26	0.23	0.24	
Chaetognatha (n=28-train=67)	0.94	0.61	0.74	
Polychaeta (larvae) (n=20-train=452)	0.14	0.45	0.21	
Calanus spp. (n=14-train=213)	0.55	0.79	0.65	0.
Eurytemora spp. (n=10-train=88)	0.00	0.00	0.00	
Aglantha spp. (medusa) (n=9-train=21)	0.55	0.67	0.60	
Oncaeidae spp. (n=6-train=16)	0.00	0.00	0.00	
Sarsia spp. (medusa) (n=4-train=4)	0.33	0.25	0.29	0.
Ostracoda (n=2-train=6)	0.00	0.00	0.00	
Tortanus spp. (n=2-train=4)	0.50	0.50	0.50	
Decapoda-non brachyura (larvae) (n=1-train=7)	0.00	0.00	0.00	
Cirripedia (larvae) (n=0-train=611)	-	-	-	
Copepoda (nauplii) (n=0-train=1025)	-	-	-	0.
Obelia spp. (medusa) (n=0-train=43)	-	-	-	
Euphausiacea (larvae) (n=0-train=75)	-	_	-	
Euphausiacea (nauplii) (n=0-train=122)	-	_	-	
macro avg (corr)	0.50	0.43	0.42	
weighted avg	0.74	0.67	0.69	
	precision	recall	f1-score	

Predictions of discarded taxa from training 100 100.0% (n=1) 0.0% 0.0% 23.6% (n=323) 0.9% (n=3) Acartia spp. 0.0% Aglantha spp. (medusa) 0.0% 0.0% 0.0% 0.3% (n=1) 0.0% 0.0% 0.0% Bivalvia (larvae) 0.0% 9.4% (n=30) 0.0% 0.0% 0.0% 5.0% (n=16) Bryozoa (larvae) 0.3% (n=4) 0.0% 0.0% Calanoida (ci-ciii) 0.0% 2.8% (n=9) 26.2% (n=359) 80 0.0% 0.0% 0.0% Calanus spp. 0.1% (n=1) 0.0% 2.5% (n=8) Cirripedia (larvae) 2.1% (n=29) 0.0% 0.0% 0.0% 0.0% Copepoda (nauplii) 7.4% (n=101) 0.0% 0.0% 7.9% (n=25) Echinodermata (larvae) 0.0% 0.0% 0.0% 0.0% 1.3% (n=4) 60 **Predicted Taxa** 0.4% (n=6) Euphausiacea (nauplii) 0.0% 0.0% 0.0% 0.6% (n=2) 0.0% Evadne spp. 3.8% (n=52) 50.0% (n=1) 0.0% 29.9% (n=95) 0.0% 2.8% (n=9) Fritillaria spp. 0.0% 0.0% 1.2% (n=17) Gastropoda (larvae/Limacina) 0.0% 0.0% 0.0% 0.0% 8.5% (n=27) Harpacticoida- epibenthic 0.7% (n=9) 0.0% 0.0% 0.0% 0.3% (n=1) 40 0.1% (n=2) 50.0% (n=1) 0.0% 0.0% 0.3% (n=1) Microcalanus spp. Oikopleura spp. 0.1% (n=2) 0.0% 0.0% 0.0% 0.0% 3.1% (n=10) Oithona spp. 11.0% (n=151) 0.0% 0.0% 0.0% Ostracoda 0.0% 0.0% 0.0% 0.0% 1.3% (n=4) Podon/Pleopsis spp. 0.4% (n=5) 0.0% 100.0% (n=1) 0.0% 11.6% (n=37) 20 Polychaeta (larvae) 0.4% (n=6) 0.0% 0.0% 0.0% 6.9% (n=22) Pseudocalanus spp. 0.0% 0.0% 0.0% 3.5% (n=11) 12.4% (n=170) 0.0% 0.0% 0.0% 0.0% 0.3% (n=1) Sarsia spp. (medusa) 0.0% 0.0% 0.0% 0.6% (n=2) 9.7% (n=133) Temora spp. 0 Foraminifera $M_{onstrillidae}$ Zooplankton (unid) Calanoida (civ-vi) $C_{yclopoida}(unid)$ Extra training classes

Actual discarded Taxa

Relative Abundance of Top Taxonomic Instances per Sample



