Use of SCN features: No

Max learning objects: Maximum 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	f Act	ual V	alue										
Acartia spp.	72%	<1%	7%	8%	3%			7%		<1%		<1%				<1%	<1%		<1%							<1%	<1%			<1%	
Evadne spp.		92%	<1%	<1%	<1%	<1%	2%	<1%						<1%	<1%	<1%			<1%							1%	1%				
Temora spp.	14%	1%	55%	9%	3%			14%				<1%				<1%	<1%									2%	3%			<1%	
Pseudocalanus spp.	21%		14%	55%	<1%			9%				<1%					<1%			<1%							<1%		<1%		
Oithona spp.	11%	1%	<1%		80%	<1%		3%				<1%				3%										<1%					
Bryozoa (larvae)		33%				52%	<1%	3%			<1%	<1%		2%		1%			<1%							<1%	7%				
Podon/Pleopsis spp.	1%	10%	13%	2%		<1%	15%	4%								<1%	1%		14%							13%	25%				
Calanoida (ci-ciii)	12%	8%	7%	8%	4%	<1%	4%	24%									3%		<1%	<1%						2%	25%				
Oikopleura spp.			2%	3%	2%			2%	62%		<1%					25%		<1%		2%					<1%				<1%		
Centropages spp.	62%		8%	1%					1%	25%										1%				1	%						
Echinodermata (larvae)	2%				20%			2%	2%		20%					46%			2%							2%	2%			2%	
Harpacticoida- epibenthic	19%		6%	9%	9%			15%				36%															2%		4%		
Hydrozoa (medusa)		23%	2%			2%	4%	2%			2%		4%		2%	17%			2%	4%	6	%	2%			15%	2%	9%			
Gastropoda (larvae/Limacina)		9%					11%							60%	11%				9%								2%				
Bivalvia (larvae)						5%	2%							16%	77%																
Fritillaria spp.	3%				9%			3%	3%		3%					79%															
Microcalanus spp.		6%	3%	6%				26%				3%					13%		10%							3%	29%				
Chaetognatha									25%							11%		61%		4%											
Polychaeta (larvae)	5%	5%	5%		10%		5%												45%							5%	15%	5%			
Calanus spp.	7%			14%																79%											
Eurytemora spp.	50%		20%	30%																											
Aglantha spp. (medusa)									11%				11%								50	ô%	11%					11%			
Oncaeidae spp.	17%			17%	17%			17%				33%																			
Sarsia spp. (medusa)																25%							25%			25%		25%			
Ostracoda						50%																					50%				
Tortanus spp.	50%																							50)%						
Decapoda-non brachyura (larvae)																				100%											
	Acart	EV 800,	remo,	PSell PDD.	Oitho docaland	Bryon Is SPD.	Podo Rano	Color Colors	Oikol Toida (cl.	Vente Venta Sp.	Chill Dages S	Harper De la	Mydra Chicoida Charac	Cash me	Bival Bival	Sitilland Paracilis	Micro Spp.	Chae Chae	Polytognatha	Calany Calany	Curytemo,	Solantha Sol	Sarsidae Sp.	Ostracodo	ortanus Spp.	Cirry Pola Pol	redia (la, n brachy,	Obelia (nau)	SPP. (M	Cuphau (Casa)	Siaced (nauplii)
																	ッ d Val											"ON O			ra .ning sses

Classification Report Matrix max available learning objects per class

	precision	recall	f1-score	
Acartia spp. (n=2490-train=5448)	0.77	0.72	0.74	
Evadne spp. (n=1931-train=2845)	0.92	0.92	0.92	
Temora spp. (n=1416-train=5148)	0.67	0.55	0.60	
Pseudocalanus spp. (n=1044-train=4552)	0.63	0.55	0.59	
Oithona spp. (n=345-train=1409)	0.66	0.80	0.73	
Bryozoa (larvae) (n=248-train=119)	0.92	0.52	0.66	
Podon/Pleopsis spp. (n=230-train=201)	0.37	0.15	0.22	
Calanoida (ci-ciii) (n=130-train=3713)	0.05	0.24	0.09	
Oikopleura spp. (n=115-train=761)	0.87	0.62	0.72	
Centropages spp. (n=88-train=40)	0.96	0.25	0.40	
Echinodermata (larvae) (n=50-train=276)	0.67	0.20	0.31	
Harpacticoida- epibenthic (n=47-train=136)	0.49	0.36	0.41	
Hydrozoa (medusa) (n=47-train=21)	0.67	0.04	0.08	
Gastropoda (larvae/Limacina) (n=47-train=110)	0.52	0.60	0.55	
Bivalvia (larvae) (n=44-train=71)	0.74	0.77	0.76	
Fritillaria spp. (n=34-train=3447)	0.22	0.79	0.34	
Microcalanus spp.	0.24	0.13	0.17	
(n=31-train=80) Chaetognatha	0.94	0.61	0.74	
(n=28-train=67) Polychaeta (larvae)	0.15	0.45	0.22	
(n=20-train=452) Calanus spp.	0.52	0.79	0.63	
(n=14-train=213) Eurytemora spp.	0.00	0.00	0.00	
(n=10-train=88) Aglantha spp. (medusa)	0.62	0.56	0.59	
(n=9-train=21) Oncaeidae spp.	0.00	0.00	0.00	
(n=6-train=16) Sarsia spp. (medusa)	0.33	0.25	0.29	
(n=4-train=4) Ostracoda	0.00	0.00	0.00	
(n=2-train=6) Tortanus spp.	0.50	0.50	0.50	
(n=2-train=4) Decapoda-non brachyura (larvae)	0.00	0.00	0.00	
(n=1-train=7) Cirripedia (larvae)	-	-	-	
(n=0-train=611) Copepoda (nauplii)	_	_	_	
(n=0-train=1025) Obelia spp. (medusa)		_		
(n=0-train=43) Euphausiacea (larvae)		_		
(n=0-train=75) Euphausiacea (nauplii)	_	_		
(n=0-train=122)	0.50	0.42	0.42	
macro avg (corr)	0.50	0.42	0.42	
weighted avg	0.74	0.67	0.69 f1-score	
	precision	recall	11-20016	

Predictions of discarded taxa from training 100 100.0% (n=1) 0.0% 0.0% 24.4% (n=334) 0.9% (n=3) Acartia spp. 0.0% Aglantha spp. (medusa) 0.0% 0.0% 0.0% 0.3% (n=1) Bivalvia (larvae) 0.0% 0.0% 0.0% 0.0% 8.8% (n=28) 0.0% 0.0% 0.0% 5.0% (n=16) Bryozoa (larvae) 0.2% (n=3) 0.0% 3.5% (n=11) Calanoida (ci-ciii) 0.0% 0.0% 26.7% (n=366) 80 0.0% 0.0% 0.0% Calanus spp. 0.1% (n=1) 0.0% Cirripedia (larvae) 1.9% (n=26) 0.0% 0.0% 0.0% 1.9% (n=6) 0.0% Copepoda (nauplii) 6.6% (n=91) 0.0% 0.0% 7.2% (n=23) Echinodermata (larvae) 0.0% 0.0% 0.0% 0.0% 1.3% (n=4) 60 **Predicted Taxa** 0.4% (n=5) 0.0% 0.0% Euphausiacea (nauplii) 0.0% 0.0% 0.0% Evadne spp. 4.0% (n=55) 50.0% (n=1) 0.0% 31.1% (n=99) 0.0% Fritillaria spp. 1.3% (n=18) 0.0% 0.0% 3.1% (n=10) Gastropoda (larvae/Limacina) 0.0% 0.0% 0.0% 0.0% 8.8% (n=28) Harpacticoida- epibenthic 0.0% 0.0% 0.0% 0.0% 0.5% (n=7) 40 0.0% 0.0% 0.0% 0.0% 0.3% (n=1) Hydrozoa (medusa) 50.0% (n=1) Microcalanus spp. 0.0% 0.0% 0.2% (n=3) 0.3% (n=1) Oikopleura spp. 0.1% (n=2) 0.0% 0.0% 0.0% 0.0% 11.0% (n=151) 0.0% 0.0% 0.0% 3.1% (n=10) Oithona spp. Ostracoda 0.0% 0.0% 0.0% 0.0% 1.3% (n=4) 20 100.0% (n=1) Podon/Pleopsis spp. 0.3% (n=4) 0.0% 0.0% 12.3% (n=39) Polychaeta (larvae) 0.4% (n=5) 0.0% 0.0% 0.0% 6.9% (n=22) Pseudocalanus spp. 0.0% 0.0% 0.0% 12.0% (n=164) 3.1% (n=10) 0.0% 0.0% 0.0% 0.6% (n=2) 9.9% (n=135) Temora spp. 0 Calanoida (civ-vi) Cyclopoida (unid) Foraminifera $M_{onstrillidae}$ Zooplankton (unid)

Extra training classes

Actual discarded Taxa

Relative Abundance of Top Taxonomic Instances per Sample



