Use of SCN features: No

Max learning objects: 20000 objects/class Strategy N° 1

Actual Values

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

Confusion Matrix - In percent of Actual Value

Harpacticoida- epibenthic 21% 18% 18% 18% 2% 2% 22% 18														•										
Tenors spp. 18	Acartia spp	73%	<1%	7%	8%	3%			8%		<1%	<1%	<1%			<1%	<1%		<1%					
Pseudocidinars.spi, 20 14 15	Evadne spp		94%	<1%	<1%	<1%	<1%	2%	1%					<1%	<1%	<1%			<1%					
Otthone spp. 12% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1% 1%	Temora spp	13%	2%	57%	9%	2%			16%				<1%				<1%							
Bryacas (larvae)	Pseudocalanus spp	20%		14%	58%	<1%			8%				<1%				<1%			<1%				
Podon/Pleapsis spp. 1% 17% 20% 2% 2% 2% 2% 2% 2% 2% 2% 2% 2% 2% 2% 2%	Oithona spp	12%	1%	1%		80%	<1%		3%			<1%				3%								
Calaroida (ci-ciii) 12k 10k 11k 8k 3k 2k 6k 8k 42k 10k 10k 10k 10k 10k 10k 10k 10k 10k 10	Bryozoa (larvae)		40%				49%	1%	4%			2%	<1%	2%		2%	<1%		<1%					
Olikopleura spp. Centropayes spp. Centro	Podon/Pleopsis spp	1%	17%	20%	2%		<1%	18%	16%							<1%	2%		22%					
Centropages spp. 64*	Calanoida (ci-ciii)	12%	10%	11%	8%	3%	<1%	8%	42%								5%		<1%	<1%				
Echinodermata (larvae) 4%	Oikopleura spp			3%	3%	2%			<1%	63%		<1%				25%		<1%		2%				<1%
Harparticoida epithenthic 21%	Centropages spp	64%		6%	2%					1%	25%									1%			1%	
Hydrozoa (medusa)	Echinodermata (larvae)	4%				18%		2%	4%	2%		22%				46%			2%					
Gastropoda (larvae/Limacina)	Harpacticoida- epibenthic	21%		6%	11%	9%			15%				38%											
Bivalvia (larvae)	Hydrozoa (medusa)		21%				2%	4%	4%			4%			2%	26%			17%	4%	15%			
Fritillaria spp.	Gastropoda (larvae/Limacina)		9%					13%						62%	9%				9%					
Microcalanus spp. 6% 6% 10% 3% 48% 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	Bivalvia (larvae)						5%	5%						16%	75%									
Chaetognatha Polychaeta (larvae) 5% 15% 10% 5% 20% 20% 20% 20% 20% 20% 20% 20% 20% 20	Fritillaria spp.					12%			3%	3%		3%				79%								
Polychaeta (larvae) 5% 15% 10% 5% 20% 45% 79% 45% 45% 45% 45% 45% 45% 45% 45% 45% 45	Microcalanus spp.		6%	6%	10%			3%	48%								16%		10%					
Calanus spp. 7%	Chaetognatha									25%						7%		61%	4%	4%				
Eurytemora spp. 60% 10% 30%	Polychaeta (larvae)	5%	15%	10%	5%				20%										45%					
Aglantha spp. (medusa) Oncaeidae spp. 17% 17% 17% 17% 17% 17% 17% 17%	Calanus spp.	7%			14%															79%				
Oncaeidae spp. 17% 17% 17% 17% 33% 25% 50% 25%	Eurytemora spp.	60%		10%	30%																			
Sarsia spp. (medusa) 25% 25%	Aglantha spp. (medusa)									11%											78%	11%		
	Oncaeidae spp	17%			17%	17%			17%				33%											
Ostracoda 50% 50%	Sarsia spp. (medusa)															25%			50%			25%		
	Ostracoda						50%		50%															
Tortanus spp. 50%	Tortanus spp.	50%																					50%	
Acartic Stading State Colon St	ecapoda–non brachyura (larvae)																							Decay

Predicted Values

Classification Report Matrix max 20000 learning objects per class

max	x 20000 le	arning obj	ects per cla	ass
	precision	recall	f1-score	
Acartia spp. (n=2490-train=5448)	0.77	0.73	0.75	
Evadne spp. (n=1931-train=2845)	0.90	0.94	0.92	
Temora spp. (n=1416-train=5148)	0.67	0.57	0.62	
Pseudocalanus spp. (n=1044-train=4552)	0.63	0.58	0.60	
Oithona spp. (n=345-train=1409)	0.67	0.80	0.73	
Bryozoa (larvae) (n=248-train=119)	0.92	0.49	0.64	
Podon/Pleopsis spp. (n=230-train=201)	0.38	0.18	0.25	
Calanoida (ci-ciii) (n=130-train=3713)	0.08	0.42	0.14	
Oikopleura spp. (n=115-train=761)	0.87	0.63	0.73	
Centropages spp. (n=88-train=40)	0.96	0.25	0.40	
Echinodermata (larvae) (n=50-train=276)	0.48	0.22	0.30	
Harpacticoida- epibenthic (n=47-train=136)	0.62	0.38	0.47	
Hydrozoa (medusa) (n=47-train=21)	0.00	0.00	0.00	
Gastropoda (larvae/Limacina) (n=47-train=110)	0.53	0.62	0.57	
Bivalvia (larvae) (n=44-train=71)	0.75	0.75	0.75	
Fritillaria spp. (n=34-train=3447)	0.22	0.79	0.35	
Microcalanus spp. (n=31-train=80)	0.24	0.16	0.19	
Chaetognatha (n=28-train=67)	0.94	0.61	0.74	
Polychaeta (larvae) (n=20-train=452)	0.10	0.45	0.16	
Calanus spp. (n=14-train=213)	0.52	0.79	0.63	
Eurytemora spp. (n=10-train=88)	0.00	0.00	0.00	
Aglantha spp. (medusa) (n=9-train=21)	0.50	0.78	0.61	
Oncaeidae spp. (n=6-train=16)	0.00	0.00	0.00	
Sarsia spp. (medusa) (n=4-train=4)	0.50	0.25	0.33	
Ostracoda (n=2-train=6)	0.00	0.00	0.00	
Tortanus spp. (n=2-train=4)	0.50	0.50	0.50	
ecapoda-non brachyura (larvae) (n=1-train=7)	0.00	0.00	0.00	
macro avg	0.47	0.44	0.42	
weighted avg	0.73	0.69	0.70	
			[4	

precision recall f1-score

Predictions of discarded taxa from training 100 25.4% (n=348) 0.0% 0.0% 100.0% (n=1) 0.6% (n=2) Acartia spp. Aglantha spp. (medusa) 0.0% 0.0% 0.0% 0.0% 0.3% (n=1) 0.0% 0.0% 0.0% 0.0% 9.1% (n=29) Bivalvia (larvae) Bryozoa (larvae) 0.4% (n=6) 0.0% 0.0% 0.0% 4.1% (n=13) 80 0.0% 0.0% 0.0% Calanoida (ci-ciii) 32.0% (n=439) 6.6% (n=21) Calanus spp. 0.1% (n=1) 0.0% 0.0% 0.0% 0.3% (n=1) Echinodermata (larvae) 0.0% 0.0% 0.0% 0.0% 1.6% (n=5) 50.0% (n=1) 0.0% 0.0% 34.6% (n=110) Evadne spp. 4.8% (n=66) 60 Fritillaria spp. 0.0% 0.0% 0.0% 3.5% (n=11) 1.2% (n=16) 0.0% 0.0% Gastropoda (larvae/Limacina) 0.0% 0.0% 8.8% (n=28) Harpacticoida- epibenthic 0.2% (n=3) 0.0% 0.0% 0.0% 0.0% 0.0% 0.9% (n=3) 40 Microcalanus spp. 0.2% (n=3) 50.0% (n=1) 0.0% Oikopleura spp. 0.1% (n=2) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 2.5% (n=8) Oithona spp. 10.5% (n=144) 0.0% 0.0% Ostracoda 0.0% 0.0% 1.3% (n=4) 20 100.0% (n=1) 0.0% Podon/Pleopsis spp. 0.8% (n=11) 0.0% 11.9% (n=38) Polychaeta (larvae) 0.7% (n=9) 0.0% 0.0% 0.0% 9.1% (n=29) 3.8% (n=12) Pseudocalanus spp. 12.9% (n=177) 0.0% 0.0% 0.0% 0.0% 0.0% 0.9% (n=3) 0.0% Temora spp. 10.6% (n=145) 0 Zooplankton (unid) Foraminifera $M_{onstrillidae}$ $C_{alanoida}$ $n \geq 1370$ (ci_{V-Vi}) Cyclopoida (unid)

Predicted Taxa

Actual discarded Taxa

Relative Abundance of Top Taxonomic Instances per Sample



