Use of SCN features: No Max learning objects: 5000 objects/class Strategy N° 1

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

										Conf	usion	Matr	ix – I	In per	cent	of Act	tual \	/alue									
Acartia spp.	72%	<1%	8%	8%	3%			8%		<1%		<1%				<1%	<1%		<1%								
Evadne spp.		94%	<1%	<1%	<1%	<1%	2%	1%						<1%	<1%	<1%			<1%								
Temora spp.	14%	2%	56%	9%	3%			17%				<1%					<1%										
Pseudocalanus spp.	19%		13%	58%	<1%			9%				<1%					<1%			<1%							
Oithona spp.	11%	1%	<1%	<1%	80%	<1%		3%			<1%					3%											
Bryozoa (larvae)		39%				50%	<1%	4%			2%	<1%		2%		<1%	<1%		<1%								
Podon/Pleopsis spp.	<1%	17%	20%	2%		<1%	17%	17%				<1%				<1%	2%		22%								
Calanoida (ci-ciii)	10%	9%	11%	7%	3%	<1%	7%	46%									4%		<1%	2%							
Oikopleura spp.			2%	3%	2%	<1%		2%	63%		<1%					24%		<1%		2%						<15	8
Centropages spp.	61%		7%	2%					1%	26%										1%						1%	
Echinodermata (larvae)	2%				18%		2%	2%	2%		18%					54%			2%								
Harpacticoida- epibenthic	19%		4%	9%	9%			17%				43%															
Hydrozoa (medusa)		23%				2%	4%	4%			2%				2%	26%			19%	4%		13%					
Gastropoda (larvae/Limacina)		9%					13%							60%	11%				9%								
Bivalvia (larvae)						5%	5%							16%	75%												
Fritillaria spp.					9%			6%	6%		3%					76%											
Microcalanus spp.		10%	6%	10%				52%									16%		6%								
Chaetognatha									29%							11%		57%		4%							
Polychaeta (larvae)	5%	15%	10%	5%	10%		5%	5%											40%							5%	
Calanus spp.				14%						7%										79%							
Eurytemora spp.	50%		20%	30%																							
Aglantha spp. (medusa)									11%				11%									67%		11%			
Oncaeidae spp.	17%			17%	17%			17%				33%															
Sarsia spp. (medusa)																25%			50%					25%			
Ostracoda						50%		50%																			
Tortanus spp.	50%																								5	50%	
Decapoda-non brachyura (larvae)	1	^	>	^		^	^				^		,		^	^	1		^	100%		1		C		λ ^	
	ACAPA	ig Spp.	Temology Spp.	is Spp.	Joca Jones	Bryoz	od Color	D/P/ dlan	Did Dikop	Centre Spp.	Da Chin	Pode, Pal	Ctic Ctic	O COS Trox	Down Will	Pritilla (lange)	Nicro.	Chaeto Calanus St.	Oly C	hae dan	SPD.	Aglan,	The Oncar	Sarsia Sidae Spp.	OSTracode	Portanus Sp.	Solo Solo
		20.	200	20.	Oithon Oithon	81102 100 SPD. 500	lande	Tolonsis	Se Circi		Chinapages Sp	Harpalo Co.	Coida (Castrop Piber	Sa lan	(lande)	, 500.	Chaeto	Atha Do	haeta (lan	DD.	1/2 500	500	Sarsia ?, medusa)	Ostracodo Spp. (medus	, SPD.	no,
						<i>N</i> .			%				The sale	Castrop Orda (medis epibenthic	ツ	Climaci	i,		•		9			dusal	S,		e Pola Pola
																•,	(4)										

Predicted Values

Classification Report Matrix max 5000 learning objects per class

má	ax 5000 lea	arning obje	ects per cla
	precision	recall	f1-score
Acartia spp. (n=2490-train=5000)	0.77	0.72	0.75
Evadne spp. (n=1931-train=2845)	0.90	0.94	0.92
Temora spp. (n=1416-train=5000)	0.66	0.56	0.60
Pseudocalanus spp. (n=1044-train=4552)	0.63	0.58	0.60
Oithona spp. (n=345-train=1409)	0.66	0.80	0.72
Bryozoa (larvae) (n=248-train=119)	0.91	0.50	0.64
Podon/Pleopsis spp. (n=230-train=201)	0.36	0.17	0.23
Calanoida (ci-ciii) (n=130-train=3713)	0.08	0.46	0.14
Oikopleura spp. (n=115-train=761)	0.85	0.63	0.72
Centropages spp. (n=88-train=40)	0.92	0.26	0.41
Echinodermata (larvae) (n=50-train=276)	0.47	0.18	0.26
Harpacticoida- epibenthic (n=47-train=136)	0.61	0.43	0.50
Hydrozoa (medusa) (n=47-train=21)	0.00	0.00	0.00
Gastropoda (larvae/Limacina) (n=47-train=110)	0.54	0.60	0.57
Bivalvia (larvae) (n=44-train=71)	0.72	0.75	0.73
Fritillaria spp. (n=34-train=3447)	0.20	0.76	0.32
Microcalanus spp. (n=31-train=80)	0.24	0.16	0.19
Chaetognatha (n=28-train=67)	0.94	0.57	0.71
Polychaeta (larvae) (n=20-train=452)	0.09	0.40	0.14
Calanus spp. (n=14-train=213)	0.50	0.79	0.61
Eurytemora spp. (n=10-train=88)	0.00	0.00	0.00
Aglantha spp. (medusa) (n=9-train=21)	0.50	0.67	0.57
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)	0.33	0.50	0.40
Decapoda-non brachyura (larvae) (n=1-train=7)	0.00	0.00	0.00
macro avg	0.46	0.43	0.41
weighted avg	0.73	0.68	0.70
		- 11	[4

Actual Values

0.0

precision recall f1-score

Predictions of discarded taxa from training 100 24.5% (n=335) 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% 3.8% (n=12) 80 0.0% 0.0% 0.0% Calanoida (ci-ciii) 33.0% (n=452) 7.2% (n=23) 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% 0.9% (n=3) 50.0% (n=1) 0.0% 0.0% Evadne spp. 4.9% (n=67) 34.3% (n=109) 60 Fritillaria spp. 0.0% 0.0% 0.0% 3.1% (n=10) 1.3% (n=18) 0.0% 0.0% Gastropoda (larvae/Limacina) 0.0% 0.0% 8.8% (n=28) 0.3% (n=1) Harpacticoida- epibenthic 0.1% (n=2) 0.0% 0.0% 0.0% 0.0% 40 Microcalanus spp. 0.2% (n=3) 50.0% (n=1) 0.0% 0.6% (n=2) 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. 10.4% (n=143) 0.0% 0.0% Ostracoda 0.0% 0.0% 1.3% (n=4) 20 100.0% (n=1) 0.0% 12.6% (n=40) Podon/Pleopsis spp. 0.7% (n=10) 0.0% Polychaeta (larvae) 0.6% (n=8) 0.0% 0.0% 0.0% 9.1% (n=29) 4.1% (n=13) Pseudocalanus spp. 12.4% (n=170) 0.0% 0.0% 0.0% 0.0% 0.0% 0.9% (n=3) 0.0% Temora spp. 11.2% (n=153) 0 Zooplankton (unid) Foraminifera $M_{onstrillidae}$ $C_{alanoida}$ $n \geq 1370$ (ci_{V-Vi}) $C_{yclopoida}(u_{nid})$

Predicted Taxa

Actual discarded Taxa



