Use of SCN features: Yes Max learning objects: 200 objects/class Strategy N° 3

Actual Values

NL 2020 Selected Samples prediction using NL 2020 training set, Learning with selected samples classes with no low regional training instances, no extra training categories, No Anthoathecata, Calanoida, Copepoda, Zooplankton classes in learning set

Confusion Matrix – In percent of Actual Value

Class	sification	Report 1	Matrix
max 200	learning	objects	per class

							Contu	sion iVia	trix – In	percent (ot Actual	value							
Temora spp.	47%	5%	3%	20%	<1%	<1%	2%	<1%	6%			13%			<1%	<1%	<1%	3%	(n
Acartia spp.	18%	38%	2%	15%	<1%	<1%	1%		5%		<1%	18%			1%	<1%	<1%	<1%	(n
Evadne spp.	1%	<1%	86%	<1%		7%		<1%	2%	<1%		<1%				<1%	<1%	2%	
Pseudocalanus spp.	22%	12%	<1%	48%	<1%	<1%	5%		2%			10%	<1%		<1%	<1%		<1%	Ps
Centropages spp.	8%	16%		2%	48%		25%					<1%	<1%				<1%		
Podon/Pleopsis spp.	13%		9%	3%		30%			<1%			2%	<1%					43%	
Eurytemora spp.	4%	7%	7%	12%		2%	<1%		26%			37%				2%		2%	Po
Gastropoda (larvae/Limacina)			4%			33%		37%		17%								10%	
Oithona spp.		3%	4%						89%			1%			1%	2%			Gastropoda
Bivalvia (larvae)								14%		86%									
Oikopleura spp.					3%		3%				63%		9%	14%	9%				
Harpacticoida- epibenthic	4%	2%	2%	12%			4%		10%			66%							
Calanus spp.					8%								92%						Harpacti
Chaetognatha				7%										93%					Turpucu
Fritillaria spp.									14%		14%				43%	29%			
Echinodermata (larvae)			20%			20%			60%										
Obelia spp. (medusa)																	100%		
Polychaeta (larvae)				100%															Echin
	Pemora St.	Acarria Va	Siadhe Sp.	P Selldoc	Centropo	Podon/K	Suryteme Seopsis Spp.	Castropo	Oithond	Bivalvia	Oikopleh (larvae)	Harpach	. Calanus	Chaetogn	Pritillar	Chinode	Obelia S	Polychae	Obe
		<i>0</i> ,	%.	<i>7</i> 0.	Canus Spp.	⁵⁰ / ₁₀	Copsis	() () () () () () () () () ()	Oithona Oda (larvae/lime	% . '	(arde)	\$1/2.	Calanus Coida Chibenthi		ath _a	Sp.	Obelia St. Arnata (larvae)	Polychae (medisa)	Olanos) Po
													'11						
									Predicte	ed Values									

I	max 200 learning objects per class							
	precision	recall	f1-score					
Temora spp. (n=18103-train=200)	0.73	0.47	0.57					
Acartia spp. (n=13302-train=200)	0.79	0.38	0.51					
Evadne spp. (n=5228-train=200)	0.83	0.86	0.85					
Pseudocalanus spp. (n=3053-train=200)	0.21	0.48	0.29					
Centropages spp. (n=330-train=40)	0.80	0.48	0.60					
Podon/Pleopsis spp. (n=253-train=200)	0.12	0.30	0.17					
Eurytemora spp. (n=178-train=88)	0.00	0.01	0.00					
Gastropoda (larvae/Limacina) (n=112-train=110)	0.44	0.37	0.40					
Oithona spp. (n=98-train=200)	0.04	0.89	0.08					
Bivalvia (larvae) (n=92-train=71)	0.69	0.86	0.76					
Oikopleura spp. (n=70-train=200)	0.88	0.63	0.73					
Harpacticoida- epibenthic (n=50-train=136)	0.01	0.66	0.01					
Calanus spp. (n=25-train=200)	0.68	0.92	0.78					
Chaetognatha (n=15-train=67)	0.58	0.93	0.72					
Fritillaria spp. (n=7-train=200)	0.02	0.43	0.03					
Echinodermata (larvae) (n=5-train=200)	0.00	0.00	0.00					
Obelia spp. (medusa) (n=1-train=43)	0.08	1.00	0.15					
Polychaeta (larvae) (n=1-train=200)	0.00	0.00	0.00					
macro avg	0.38	0.54	0.37					
weighted avg	0.71	0.49	0.56					
	precision	recall	f1-score					

Predictions of discarded taxa from training Acartia spp. 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 6.5% (n=295) 0.0% 0.0% 0.0% 2.2% (n=25) 0.0% 8.4% (n=94) Bivalvia (larvae) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% Calanus spp. 40.0% (n=4) 100.0% (n=1) 50.0% (n=3) 0.0% 0.0% 0.0% 57.1% (n=8) 0.0% 100.0% (n=2) 4.7% (n=3) 50.0% (n=1) 0.0% (n=2) 80 Centropages spp. 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.1% (n=4) 0.0% 0.0% 0.0% 100.0% (n=1) 0.1% (n=1) Echinodermata (larvae) 0.0% 0.0% 0.0% 0.0% 50.0% (n=1) 1.4% (n=66) 0.0% 0.0% 0.0% 0.0% 3.2% (n=36) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.3% (n=3) 1.2% (n=55) 0.0% 1.6% (n=1) Eurytemora spp. 0.0% 0.0% Evadne spp. 0.0% 0.0% 0.0% 0.0% 0.0% 16.2% (n=738) 0.0% 15.6% (n=10) 0.0% 31.3% (n=352) 60 Fritillaria spp. 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.7% (n=8) 0.5% (n=24) 3.1% (n=2) Gastropoda (larvae/Limacina) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.2% (n=9) 0.0% 0.0% 0.0% 0.0% 8.0% (n=90) 0.0% 0.0% 21.9% (n=7) 0.0% 0.0% 0.0% 0.0% 0.0% 2.5% (n=28) 0.0% 14.2% (n=648) 0.0% Harpacticoida- epibenthic 40 0.0% 33.3% (n=2) 37.5% (n=24) 0.0% 0.1% (n=1) Obelia spp. (medusa) 60.0% (n=6) 0.0% 0.0% 0.0% 0.1% (n=3) 0.0% 0.0% 16.7% (n=1) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% (n=2) 0.0% 0.0% 0.0% 0.0% 0.4% (n=5) Oikopleura spp. Oithona spp. 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 18.4% (n=840) 0.0% 0.0% 0.0% 0.0% 2.6% (n=29) Podon/Pleopsis spp. 0.0% 0.0% 0.0% 0.0% 3.7% (n=168) 0.0% 0.0% 29.5% (n=331) 0.0% 0.0% 0.0% 3.1% (n=2) 20 0.0% 0.0% 0.0% 32.8% (n=21) 0.0% Polychaeta (larvae) 0.0% 0.0% 0.0% 7.5% (n=344) 0.0% 0.0% 7.9% (n=89) 0.0% 0.0% 68.8% (n=22) 28.6% (n=4) 50.0% (n=1) 15.8% (n=719) 1.0% (n=11) Pseudocalanus spp. 0.0% 0.0% 1.6% (n=1) 50.0% (n=1) 0.0% 1.8% (n=20) Temora spp. 0.0% 0.0% 0.0% 9.4% (n=3) 14.3% (n=2) 0.0% 14.1% (n=645) 0.0% 0.0% 0.0% 0.0% Decapoda-non brachyura (larvae) Anthoathecata (medusa) Zooplankton (unid) Cnidaria (larvae) Copepoda "== 4562 (unid) Metridia spp. Tomopteris spp. Chiridius spp. $n \ge 2$

Taxa

Predicted

Actual discarded Taxa

Relative Abundance of Top Taxonomic Instances per Sample Val Pred 1.0 -0.8 -Relative Abundance 0.4 0.2 -

S25

Sample Short ID

S26

S27

S28

S29

S30

0.0

S21

S22

S23

S24

