Use of SCN features: No

Max learning objects: 200 objects/class Strategy N° 4

Actual Values

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

1		ation Repor arning objec	
	precision	recall	f1-score
Temora spp. (n=18103-train=200)	0.71	0.31	0.43
Acartia spp. (n=13302-train=200)	0.75	0.34	0.47
Evadne spp. (n=5228-train=200)	0.92	0.73	0.81
Pseudocalanus spp. (n=3053-train=200)	0.21	0.41	0.27
Centropages spp. (n=330-train=40)	0.71	0.44	0.54
Podon/Pleopsis spp. (n=253-train=200)	0.08	0.21	0.12
Eurytemora spp. (n=178-train=88)	0.00	0.00	0.00
Gastropoda (larvae/Limacina) (n=112-train=110)	0.49	0.36	0.41
Oithona spp. (n=98-train=200)	0.08	0.88	0.14
Bivalvia (larvae) (n=92-train=71)	0.67	0.91	0.77
Oikopleura spp. (n=70-train=200)	0.88	0.61	0.72
Harpacticoida- epibenthic (n=50-train=136)	0.01	0.64	0.02
Calanus spp. (n=25-train=200)	0.76	0.88	0.81
Chaetognatha (n=15-train=67)	0.56	0.93	0.70
Fritillaria spp. (n=7-train=200)	0.03	0.43	0.06
Echinodermata (larvae) (n=5-train=200)	0.00	0.00	0.00
Obelia spp. (medusa) (n=1-train=43)	0.33	1.00	0.50
Polychaeta (larvae) (n=1-train=200)	0.00	0.00	0.00
Bryozoa (larvae) (n=0-train=119)	-	-	-
Calanoida (ci-ciii) (n=0-train=200)	-	-	-
Cirripedia (larvae) (n=0-train=200)	-	-	-
Copepoda (nauplii) (n=0-train=200)	-	-	-
Microcalanus spp. (n=0-train=80)	-	-	-
Euphausiacea (larvae) (n=0-train=75)	_	_	-
Euphausiacea (nauplii) (n=0-train=122)	_	-	-
macro avg (corr)	0.40	0.50	0.38
weighted avg	0.70	0.38	0.48

precision recall f1-score

									Co	onfusio	on Ma	trix –	In per	cent o	f Actu	al Val	ue								
Temora spp.	31%	6%	1%	16%	<1%	<1%	1%		3%	<1%		9%			<1%	<1%		2%	<1%	4%	3%	2%	7%	<1%	13%
Acartia spp.	13%	34%	<1%	14%	<1%	<1%	2%		3%		<1%	14%			<1%	<1%	<1%	<1%	<1%	2%	1%	1%	4%	2%	9%
Evadne spp.	<1%		73%	<1%		8%		<1%	1%	<1%		<1%				<1%		1%	6%	<1%	4%	3%	2%		<1%
Pseudocalanus spp.	18%	12%	<1%	41%	<1%	<1%	5%		<1%			7%	<1%		<1%	<1%		<1%		3%	<1%	<1%	5%	2%	5%
Centropages spp.	10%	15%		<1%	44%		26%		<1%			<1%					<1%				<1%			2%	<1%
Podon/Pleopsis spp.	5%		3%			21%						<1%	<1%					41%	<1%	<1%	8%	6%	14%		<1%
Eurytemora spp.	<1%	7%	3%	2%					17%			17%								13%		8%	14%	<1%	18%
Gastropoda (larvae/Limacina)			3%			31%		36%		17%								10%				4%			
Oithona spp.		3%	1%						88%			1%			2%				3%	1%					1%
Bivalvia (larvae)								9%		91%															
Oikopleura spp.	1%				3%		1%				61%		6%	16%	11%										
Harpacticoida- epibenthic				8%					2%			64%								2%			8%	2%	14%
Calanus spp.					4%		8%						88%												
Chaetognatha														93%										7%	
Fritillaria spp.									14%		14%				43%	14%		14%							
Echinodermata (larvae)			20%			20%			60%																
Obelia spp. (medusa)																	100%								
Polychaeta (larvae)				100%																					
	Temora	Acarric Spp.	Spp	Spp.	Centro, Ocalanus St.	Podon, podos Spp.	Pleopsis St.	Castro, Opp. The	Oithon	Bivalvie Spp.	Oikople (larvae)	Harpal Aura Spp.	Calanti Cation Calanti	Chaeto, Spp.	Pritilla Inatha	Chino Spp.	Obelia Obelia	Sp. (nedl	Bryozo (lanae)	Calano	Ciripe (ci.ciii)	Copepi dia (lanae)	Microc (naupli)	Euphala Spp.	Euphe Siaced (la
										**/			icted V												E tr cl

Predictions of discarded taxa from training 0.0% 0.0% 0.0% 0.0% 0.0% 5.9% (n=268) 0.0% 0.0% 0.0% 0.0% 2.4% (n=27) Acartia spp. 0.0% 0.0% 0.0% 0.0% Bivalvia (larvae) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 9.3% (n=104) 4.7% (n=3) Bryozoa (larvae) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 1.4% (n=63) 0.0% 0.0% 0.0% 0.0% 9.0% (n=101) 0.0% 0.0% 3.1% (n=1) 5.6% (n=257) 0.0% 0.0% 0.0% Calanoida (ci-ciii) 0.0% 0.0% 0.0% 0.0% 0.7% (n=8) Calanus spp. 30.0% (n=3) 100.0% (n=1) 0.0% 0.0% 0.0% (n=2) 100.0% (n=2) 3.1% (n=2) 0.0% 0.0% 0.0% (n=3) 57.1% (n=8) 50.0% (n=1) 80 0.1% (n=1) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.1% (n=3) 0.0% 0.0% 0.0% Centropages spp. 0.0% 0.0% 7.1% (n=1) 4.7% (n=3) 0.0% 0.0% Cirripedia (larvae) 0.0% 0.0% 0.0% 0.0% 3.6% (n=166) 0.0% 1.7% (n=19) 50.0% (n=1) 9.2% (n=421) 3.0% (n=34) Copepoda (nauplii) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.4% (n=16) 0.0% 1.2% (n=14) Echinodermata (larvae) Euphausiacea (larvae) 0.0% 0.0% 0.0% 6.2% (n=2) 0.0% 0.0% 0.9% (n=39) 0.0% 3.1% (n=2) 0.0% 0.0% 0.3% (n=3) Taxa 60 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% Euphausiacea (nauplii) 0.0% 0.0% 9.9% (n=452) 1.3% (n=15) 0.0% 0.0% 0.0% 0.0% 0.0% Predicted Eurytemora spp. 0.0% 0.0% 0.0% 1.5% (n=68) 0.0% 1.6% (n=1) 0.2% (n=2) 21.7% (n=244) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 10.9% (n=7) 0.0% 0.0% 6.8% (n=311) Evadne spp. 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.5% (n=23) 0.0% 0.0% 0.1% (n=1) Fritillaria spp. 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.1% (n=5) 0.0% 0.0% 0.0% 0.0% 6.4% (n=72) 40 Gastropoda (larvae/Limacina) 0.0% 0.0% 0.0% 0.0% 0.0% 8.7% (n=395) 0.0% 0.0% 0.0% 0.0% 1.5% (n=17) Harpacticoida- epibenthic 25.0% (n=8) 0.0% 0.0% 0.0% Microcalanus spp. 0.0% 0.0% 0.0% 0.0% 0.0% 10.3% (n=469) 0.0% 1.6% (n=1) 2.9% (n=33) 33.3% (n=2) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 100.0% (n=1) 0.0% Obelia spp. (medusa) 70.0% (n=7) 35.9% (n=23) 0.0% 0.0% 0.0% 0.0% 0.0% (n=1) 0.0% 0.0% 0.4% (n=5) Oikopleura spp. 0.0% 16.7% (n=1) 1.6% (n=1) 0.0% 20 0.0% 0.0% 0.0% 0.0% Oithona spp. 0.0% 0.0% 0.0% 0.0% 0.0% 13.1% (n=599) 0.0% 2.5% (n=28) 0.0% 0.0% Podon/Pleopsis spp. 0.0% 0.0% 0.0% 0.0% 1.9% (n=85) 0.0% 1.6% (n=1) 0.0% 0.0% 27.5% (n=309) Polychaeta (larvae) 0.0% 0.0% 0.0% 3.1% (n=1) 0.0% 0.0% 3.3% (n=150) 0.0% 31.2% (n=20) 0.0% 0.0% 6.5% (n=73) 0.0% 0.0% 0.0% 0.0% 0.0% 0.4% (n=5) Pseudocalanus spp. 0.0% 11.0% (n=502) 0.0% 50.0% (n=1) 53.1% (n=17) 35.7% (n=5) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.7% (n=8) Temora spp. 9.4% (n=3) 0.0% 50.0% (n=1) 5.9% (n=267) 0.0% Decapoda-non brachyura (larvae) Anthoathecata (medusa) Zooplankton (unid) Calanoida (unid) Cnidaria (larvae) Tomopteris spp. Metridia spp. Chiridius spp. Copepoda "=< ... n=4562 (unid) Extra training classes

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

