Use of SCN features: Yes

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

Confusion Matrix – In percent of Actual Value

J • • • • • • • • • • • • • • • • • • •			
	Classific max 200 lea	rt Matrix cts per class	
	precision	recall	f1-score
Temora spp. (n=18103-train=200)	0.74	0.35	0.47
Acartia spp. (n=13302-train=200)		0.36	0.49
Evadne spp. (n=5228-train=200)		0.75	0.82
Pseudocalanus spp. (n=3053-train=200)	11 1 9	0.44	0.27
Centropages spp. (n=330-train=40)		0.45	0.57
Podon/Pleopsis spp. (n=253-train=200)		0.17	0.12
Eurytemora spp. (n=178-train=88)	111111	0.00	0.00
astropoda (larvae/Limacina) (n=112-train=110)		0.35	0.40
Oithona spp. (n=98-train=200)		0.86	0.12
Bivalvia (larvae) (n=92-train=71)		0.87	0.70
Oikopleura spp. (n=70-train=200)		0.69	0.78
Harpacticoida- epibenthic (n=50-train=136)	11111	0.60	0.02
Calanus spp. (n=25-train=200)		0.88	0.79
Chaetognatha (n=15-train=67)		0.93	0.78
Fritillaria spp. (n=7-train=200)		0.43	0.05
Echinodermata (larvae) (n=5-train=200)	11111	0.20	0.01
Obelia spp. (medusa) (n=1-train=43)	H H H	1.00	0.11
Polychaeta (larvae) (n=1-train=200)		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)	0.39	0.52	0.36

classes

weighted avg

0.50

f1-score

0.41

recall

precision



Predictions of discarded taxa from training 0.0% 0.0% 0.0% 0.0% 0.0% 6.5% (n=297) 0.0% 0.0% 0.0% 0.0% 2.2% (n=25) Acartia spp. 0.0% 0.0% 0.0% 0.0% 10.4% (n=117) Bivalvia (larvae) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 3.1% (n=2) 0.0% Bryozoa (larvae) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.9% (n=42) 0.0% 0.0% 0.0% 0.0% 9.3% (n=105) 0.0% 0.0% 0.0% 8.4% (n=383) 0.0% 0.0% 0.0% Calanoida (ci-ciii) 0.0% 0.0% 0.0% 0.0% 1.3% (n=15) Calanus spp. 40.0% (n=4) 100.0% (n=1) 0.0% 57.1% (n=8) 0.0% 0.0% (n=2) 100.0% (n=2) 6.2% (n=4) 0.0% 0.0% 50.0% (n=1 0.0% (n=3) 80 0.1% (n=1) 0.0% 0.0% 0.1% (n=3) Centropages spp. 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 100.0% (n=1) 0.0% 0.0% Cirripedia (larvae) 0.0% 0.0% 0.0% 0.0% 0.0% 4.1% (n=186) 0.0% 9.4% (n=6) 0.0% 1.7% (n=19) 4.8% (n=54) Copepoda (nauplii) 0.0% 0.0% 0.0% 0.0% 0.0% 50.0% (n=1) **8.4%** (n=385) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% Echinodermata (larvae) 0.0% 0.0% 1.2% (n=14) 1.0% (n=47) Euphausiacea (larvae) 0.0% 0.0% 0.0% 3.1% (n=1) 0.0% 0.0% 0.4% (n=19) 0.0% 3.1% (n=2) 0.0% 0.0% 0.2% (n=2) Taxa 60 0.7% (n=8) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% Euphausiacea (nauplii) 6.2% (n=2) 0.0% 6.4% (n=291) 0.0% 0.0% 0.0% 0.0% Predicted Eurytemora spp. 0.0% 3.1% (n=1) 0.0% 0.0% 0.9% (n=43) 0.0% 1.6% (n=1) 0.4% (n=4) 21.6% (n=243) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 8.8% (n=400) 0.0% 12.5% (n=8) 0.0% 0.0% Evadne spp. 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.4% (n=20) 0.0% 0.0% 0.4% (n=5) Fritillaria spp. 0.0% 1.6% (n=1) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.1% (n=6) 0.0% 1.6% (n=1) 0.0% 0.0% 6.9% (n=77) 40 Gastropoda (larvae/Limacina) 0.0% 0.0% 0.0% 0.0% 0.0% 7.3% (n=331) 0.0% 0.0% 0.0% 0.0% 1.2% (n=14) Harpacticoida- epibenthic 21.9% (n=7) 0.0% 0.0% 0.0% 2.0% (n=22) Microcalanus spp. 0.0% 0.0% 0.0% 0.0% 9.7% (n=444) 0.0% 1.6% (n=1) 0.0% 33.3% (n=2) Obelia spp. (medusa) 60.0% (n=6) 0.0% 0.0% 0.0% 0.0% 0.0% 31.2% (n=20) 0.0% 0.0% 0.3% (n=3) 0.0% (n=2) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.4% (n=5) Oikopleura spp. 0.0% 16.7% (n=1) 0.0% (n=2) 0.0% 20 0.0% 0.0% 0.0% 0.0% Oithona spp. 0.0% 0.0% 0.0% 0.0% 0.0% 13.0% (n=595) 0.0% 2.1% (n=24) 0.0% 26.0% (n=292) Podon/Pleopsis spp. 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 1.4% (n=66) 0.0% 0.0% 1.6% (n=1) Polychaeta (larvae) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 2.3% (n=104) 0.0% 26.6% (n=17) 0.0% 0.0% 5.4% (n=61) 0.0% 0.0% 0.0% 0.0% Pseudocalanus spp. 50.0% (n=16) 21.4% (n=3) 13.0% (n=592) 0.0% 0.0% 50.0% (n=1) 0.5% (n=6) 50.0% (n=1 0.6% (n=7) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% Temora spp. 15.6% (n=5) 21.4% (n=3) 0.0% 6.6% (n=302) 0.0% Decapoda-non brachyura (larvae) Anthoathecata (medusa) Zooplankton (unid) Calanoida (unid) Cnidaria (larvae) Tomopteris spp. Copepoda "=< ... n=4562 (unid) Metridia spp. Chiridius spp. Extra training classes

Actual discarded Taxa

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



