

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

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

Confusion Matrix - In percent of Actual Value

Classification Report Matrix
max 200 learning objects per class

precision recall f1-score

Actual Values

Acartia spp.	50%	<1%	7%	14%	5%	<1%		4%	<1%	<1%	<1%	14%			<1%	3%				1%
Evadne spp.		82%	<1%	<1%	<1%	6%	7%	<1%		<1%	<1%	2%	<1%	<1%	<1%		<1%			
Temora spp.	11%	1%	43%	10%	9%	<1%	<1%	13%		<1%	<1%	5%			<1%	4%		<1%		3%
Pseudocalanus spp.	19%		12%	46%	<1%			6%		<1%	<1%	5%			<1%	5%		<1%		6%
Oithona spp.	8%	<1%	<1%	<1%	83%	<1%		<1%			<1%	<1%			3%					<1%
Bryozoa (larvae)		6%				89%	1%				<1%		2%		<1%	<1%				
Podon/Pleopsis spp.		7%	10%	<1%	<1%	5%	26%	3%	<1%	<1%	<1%	2%				17%		26%		<1%
Calanoida (ci-ciii)	9%	12%	5%	4%	7%	6%	8%	10%			4%	3%				26%		<1%	<1%	5%
Oikopleura spp.			3%	3%	3%	<1%		<1%	68%		<1%				10%		7%	<1%	3%	<1%
Centropages spp.	18%		5%	2%						68%									1%	6%
Echinodermata (larvae)	8%				22%	2%	2%		2%		28%				32%			4%		
Harpacticoida- epibenthic			4%	4%	9%	2%		4%				74%				2%				
Gastropoda (larvae/Limacina)		6%					13%						64%	11%				6%		
Bivalvia (larvae)						5%	5%						11%	80%						
Fritillaria spp.					15%				3%		9%				74%					
Microcalanus spp.		6%		3%	3%		6%	6%				6%				61%		6%		
Chaetognatha									18%						4%		75%		4%	
Polychaeta (larvae)	5%				15%	5%	20%						5%	5%		5%		35%	5%	
Calanus spp.										7%									86%	7%
Eurytemora spp.	20%		20%	30%																30%
Acartia spp. Evadne spp. Temora spp. Pseudocalanus spp. Oithona spp. Bryozoa (larvae) Podon/Pleopsis spp. Calanoida (ci-ciii) Oikopleura spp. Centropages spp. Echinodermata (larvae) Harpacticoida- epibenthic Gastropoda (larvae/Limacina) Bivalvia (larvae) Fritillaria spp. Microcalanus spp. Chaetognatha Polychaeta (larvae) Calanus spp. Eurytemora spp.																				

Predicted Values

Acartia spp. (n=2490-train=200)	0.75	0.50	0.60
Evadne spp. (n=1931-train=200)	0.95	0.82	0.88
Temora spp. (n=1416-train=200)	0.63	0.43	0.51
Pseudocalanus spp. (n=1044-train=200)	0.48	0.46	0.47
Oithona spp. (n=345-train=200)	0.48	0.83	0.61
Bryozoa (larvae) (n=248-train=119)	0.59	0.89	0.71
Podon/Pleopsis spp. (n=230-train=200)	0.26	0.26	0.26
Calanoida (ci-ciii) (n=130-train=200)	0.03	0.10	0.05
Oikopleura spp. (n=115-train=200)	0.90	0.68	0.77
Centropages spp. (n=88-train=40)	0.90	0.68	0.77
Echinodermata (larvae) (n=50-train=200)	0.30	0.28	0.29
Harpacticoida- epibenthic (n=47-train=136)	0.07	0.74	0.13
Gastropoda (larvae/Limacina) (n=47-train=110)	0.43	0.64	0.51
Bivalvia (larvae) (n=44-train=71)	0.69	0.80	0.74
Fritillaria spp. (n=34-train=200)	0.27	0.74	0.40
Microcalanus spp. (n=31-train=80)	0.07	0.61	0.12
Chaetognatha (n=28-train=67)	0.72	0.75	0.74
Polychaeta (larvae) (n=20-train=200)	0.08	0.35	0.13
Calanus spp. (n=14-train=200)	0.52	0.86	0.65
Eurytemora spp. (n=10-train=88)	0.02	0.30	0.04
macro avg	0.46	0.59	0.47
weighted avg	0.69	0.58	0.61
precision recall f1-score			



Predictions of discarded taxa from training

Predicted Taxa

Acartia spp.	0.0%	14.2% _(n=195)	0.0%	0.0%	0.0%	0.0%	100.0% _(n=1)	0.0%	0.0%	0.0%	50.0% _(n=1)	0.0%
Bivalvia (larvae)	0.0%	0.0%	0.0%	0.0%	0.0%	2.1% _(n=1)	0.0%	0.0%	0.0%	0.0%	0.0%	8.8% _(n=28)
Bryozoa (larvae)	0.0%	2.0% _(n=27)	0.0%	0.0%	0.0%	8.5% _(n=4)	0.0%	0.0%	100.0% _(n=2)	0.0%	0.0%	15.4% _(n=49)
Calanoida (ci-ciii)	0.0%	13.0% _(n=178)	0.0%	0.0%	0.0%	0.0%	0.0%	16.7% _(n=1)	0.0%	0.0%	0.0%	2.5% _(n=8)
Calanus spp.	55.6% _(n=5)	0.1% _(n=1)	0.0%	100.0% _(n=1)	0.0%	10.6% _(n=5)	0.0%	0.0%	0.0%	25.0% _(n=1)	50.0% _(n=1)	0.6% _(n=2)
Centropages spp.	0.0%	0.1% _(n=2)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Echinodermata (larvae)	0.0%	0.9% _(n=12)	0.0%	0.0%	0.0%	4.3% _(n=2)	0.0%	0.0%	0.0%	0.0%	0.0%	2.5% _(n=8)
Eurytemora spp.	0.0%	1.5% _(n=21)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	25.0% _(n=1)	0.0%	0.0%
Evadne spp.	0.0%	3.8% _(n=52)	50.0% _(n=1)	0.0%	0.0%	10.6% _(n=5)	0.0%	0.0%	0.0%	0.0%	0.0%	15.7% _(n=50)
Fritillaria spp.	0.0%	1.6% _(n=22)	0.0%	0.0%	0.0%	19.1% _(n=9)	0.0%	0.0%	0.0%	0.0%	0.0%	0.9% _(n=3)
Gastropoda (larvae/Limacina)	0.0%	0.0%	0.0%	0.0%	100.0% _(n=1)	2.1% _(n=1)	0.0%	0.0%	0.0%	0.0%	0.0%	12.9% _(n=41)
Harpacticoida- epibenthic	0.0%	11.5% _(n=158)	0.0%	0.0%	0.0%	0.0%	0.0%	66.7% _(n=4)	0.0%	0.0%	0.0%	0.9% _(n=3)
Microcalanus spp.	0.0%	7.9% _(n=108)	50.0% _(n=1)	0.0%	0.0%	4.3% _(n=2)	0.0%	0.0%	0.0%	0.0%	0.0%	5.3% _(n=17)
Oikopleura spp.	0.0%	0.1% _(n=2)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Oithona spp.	0.0%	20.7% _(n=283)	0.0%	0.0%	0.0%	0.0%	0.0%	16.7% _(n=1)	0.0%	0.0%	0.0%	3.1% _(n=10)
Podon/Pleopsis spp.	0.0%	1.1% _(n=15)	0.0%	0.0%	0.0%	8.5% _(n=4)	0.0%	0.0%	0.0%	0.0%	0.0%	19.8% _(n=63)
Polychaeta (larvae)	44.4% _(n=4)	0.3% _(n=4)	0.0%	0.0%	0.0%	29.8% _(n=14)	0.0%	0.0%	0.0%	50.0% _(n=2)	0.0%	9.4% _(n=30)
Pseudocalanus spp.	0.0%	11.8% _(n=162)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9% _(n=3)
Temora spp.	0.0%	9.3% _(n=128)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9% _(n=3)



Aglantha spp. (medusa)
n=9

Calanoida (civ-vi)
n=2

Cyclopoida (unid)
n=1

Decapoda-non brachyura (larvae)
n=1

Foraminifera
n=1

Hydrozoa (medusa)
n=47

Monstrillidae
n=1

Oncaeidae spp.
n=6

Ostracoda
n=2

Sarsia spp. (medusa)
n=4

Tortanus spp. (medusa)
n=2

Zooplankton (unid)
n=318

Actual discarded Taxa

Relative Abundance of Top Taxonomic Instances per Sample

