

Use of SCN features: No
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.	51%	<1%	8%	15%	5%	<1%	<1%	4%	<1%	<1%	<1%	11%			1%	3%		<1%		2%
Evadne spp.		82%	<1%	<1%	<1%	7%	6%	<1%			<1%		1%	<1%	<1%	<1%		<1%		
Temora spp.	12%	2%	43%	9%	8%	<1%	<1%	12%		<1%	<1%	5%			<1%	4%		<1%		3%
Pseudocalanus spp.	19%		12%	45%	<1%		<1%	6%		<1%	<1%	5%			<1%	5%			<1%	7%
Oithona spp.	8%	<1%	<1%	<1%	83%	<1%		1%			1%	<1%			3%					<1%
Bryozoa (larvae)		5%				87%	3%				<1%		2%		<1%	<1%		<1%		
Podon/Pleopsis spp.		8%	8%	<1%	<1%	5%	30%	3%	<1%	<1%		<1%				20%		22%		<1%
Calanoida (ci-ciii)	10%	12%	5%	5%	7%	7%	7%	11%			2%	3%				26%			2%	3%
Oikopleura spp.			<1%	3%	3%	<1%		<1%	67%	<1%	<1%				11%		8%	<1%	3%	<1%
Centropages spp.	17%		5%	1%					1%	70%										6%
Echinodermata (larvae)	10%				22%	2%	2%		4%		28%				28%			4%		
Harpacticoida- epibenthic		2%	9%	2%	6%			6%				74%								
Gastropoda (larvae/Limacina)		9%					11%						62%	13%				6%		
Bivalvia (larvae)						5%	2%						14%	80%						
Fritillaria spp.					12%				12%		9%				68%					
Microcalanus spp.		6%		3%		3%	3%	13%				6%				58%		6%		
Chaetognatha									21%						4%		71%		4%	
Polychaeta (larvae)	5%	5%			10%	5%	15%				5%			5%		10%		35%	5%	
Calanus spp.										7%									86%	7%
Eurytemora spp.	20%		20%	30%								10%								20%
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)	0.74	0.51	0.61
Evadne spp. (n=1931-train=200)	0.95	0.82	0.88
Temora spp. (n=1416-train=200)	0.64	0.43	0.51
Pseudocalanus spp. (n=1044-train=200)	0.48	0.45	0.47
Oithona spp. (n=345-train=200)	0.51	0.83	0.63
Bryozoa (larvae) (n=248-train=119)	0.55	0.87	0.67
Podon/Pleopsis spp. (n=230-train=200)	0.30	0.30	0.30
Calanoida (ci-ciii) (n=130-train=200)	0.04	0.11	0.05
Oikopleura spp. (n=115-train=200)	0.84	0.67	0.74
Centropages spp. (n=88-train=40)	0.87	0.70	0.78
Echinodermata (larvae) (n=50-train=200)	0.27	0.28	0.27
Harpacticoida- epibenthic (n=47-train=136)	0.08	0.74	0.14
Gastropoda (larvae/Limacina) (n=47-train=110)	0.47	0.62	0.53
Bivalvia (larvae) (n=44-train=71)	0.65	0.80	0.71
Fritillaria spp. (n=34-train=200)	0.24	0.68	0.36
Microcalanus spp. (n=31-train=80)	0.06	0.58	0.11
Chaetognatha (n=28-train=67)	0.69	0.71	0.70
Polychaeta (larvae) (n=20-train=200)	0.09	0.35	0.14
Calanus spp. (n=14-train=200)	0.50	0.86	0.63
Eurytemora spp. (n=10-train=88)	0.01	0.20	0.02
macro avg	0.45	0.58	0.46
weighted avg	0.69	0.58	0.62
	precision	recall	f1-score



Predictions of discarded taxa from training

Predicted Taxa

Acartia spp.	0.0%	15.8% _(n=217)	0.0%	0.0%	0.0%	0.0%	0.0%	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%	10.7% _(n=34)
Bryozoa (larvae)	0.0%	1.8% _(n=25)	0.0%	0.0%	0.0%	8.5% _(n=4)	0.0%	0.0%	100.0% _(n=2)	0.0%	0.0%	17.6% _(n=56)
Calanoida (ci-ciii)	0.0%	14.7% _(n=202)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.9% _(n=6)
Calanus spp.	33.3% _(n=3)	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=1)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Echinodermata (larvae)	0.0%	1.0% _(n=14)	0.0%	0.0%	0.0%	2.1% _(n=1)	0.0%	0.0%	0.0%	0.0%	0.0%	2.5% _(n=8)
Eurytemora spp.	0.0%	1.5% _(n=20)	0.0%	0.0%	0.0%	0.0%	100.0% _(n=1)	0.0%	0.0%	25.0% _(n=1)	0.0%	0.0%
Evadne spp.	0.0%	3.6% _(n=50)	50.0% _(n=1)	0.0%	0.0%	10.6% _(n=5)	0.0%	0.0%	0.0%	0.0%	0.0%	16.0% _(n=51)
Fritillaria spp.	0.0%	1.8% _(n=25)	0.0%	0.0%	0.0%	21.3% _(n=10)	0.0%	0.0%	0.0%	0.0%	0.0%	1.3% _(n=4)
Gastropoda (larvae/Limacina)	0.0%	0.0%	0.0%	0.0%	100.0% _(n=1)	4.3% _(n=2)	0.0%	0.0%	0.0%	0.0%	0.0%	11.6% _(n=37)
Harpacticoida- epibenthic	0.0%	11.8% _(n=161)	0.0%	0.0%	0.0%	0.0%	0.0%	66.7% _(n=4)	0.0%	0.0%	0.0%	1.6% _(n=5)
Microcalanus spp.	0.0%	7.3% _(n=100)	50.0% _(n=1)	0.0%	0.0%	6.4% _(n=3)	0.0%	0.0%	0.0%	0.0%	0.0%	5.3% _(n=17)
Oikopleura spp.	11.1% _(n=1)	0.2% _(n=3)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Oithona spp.	0.0%	18.8% _(n=258)	0.0%	0.0%	0.0%	0.0%	0.0%	16.7% _(n=1)	0.0%	0.0%	0.0%	2.8% _(n=9)
Podon/Pleopsis spp.	0.0%	1.8% _(n=25)	0.0%	0.0%	0.0%	4.3% _(n=2)	0.0%	0.0%	0.0%	0.0%	0.0%	17.3% _(n=55)
Polychaeta (larvae)	55.6% _(n=5)	0.6% _(n=8)	0.0%	0.0%	0.0%	29.8% _(n=14)	0.0%	0.0%	0.0%	50.0% _(n=2)	0.0%	8.8% _(n=28)
Pseudocalanus spp.	0.0%	10.7% _(n=146)	0.0%	0.0%	0.0%	0.0%	0.0%	16.7% _(n=1)	0.0%	0.0%	0.0%	0.9% _(n=3)
Temora spp.	0.0%	8.3% _(n=114)	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=1370

Cyclopoida (unid)
n=2

Decapoda (unid)
n=1

Decapoda-non brachyura (larvae)
n=1

Foraminifera
n=47

Hydrozoa (medusa)
n=1

Monstrillidae
n=6

Oncaeidae spp.
n=2

Ostracoda
n=4

Sarsia spp. (medusa)
n=2

Tortanus spp.
n=318

Zooplankton (unid)

Actual discarded Taxa

Relative Abundance of Top Taxonomic Instances per Sample

