NL 2021 Selected Samples prediction using NL 2021 training set,
Learning with all classes present in the selected samples, with extra training categories,
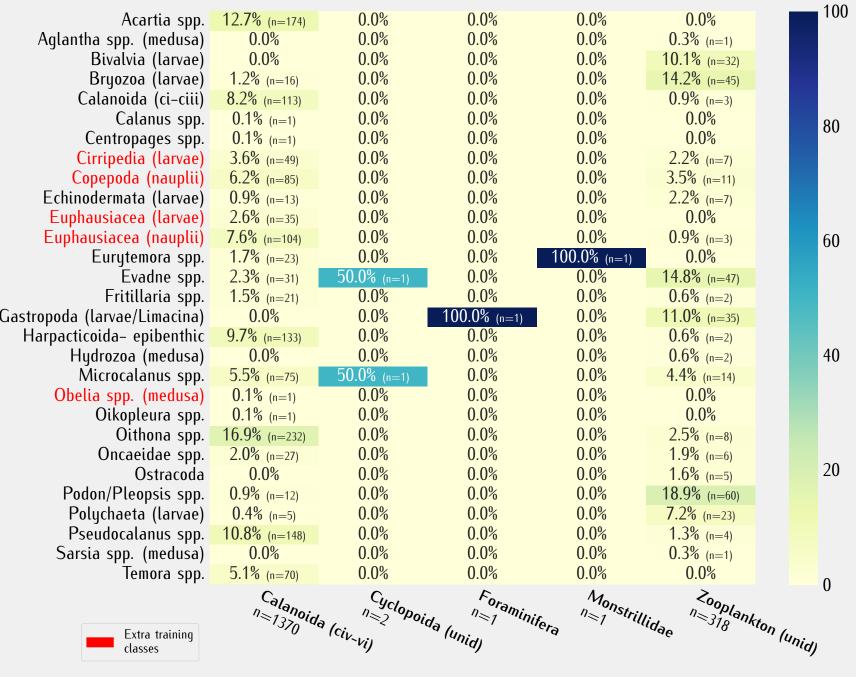No Calanoida (civ-vi), Cyclopoida, Zooplankton classes in learning set

Use of SCN features: No
Max learning objects: 200 objects/class
Strategy N° 2

Confusion Matrix - In percent of Actual Value

Classification Report Matrix
max 200 learning objects per class

	precision	recall	f1-score
Acartia spp. (n=2490-train=200)	0.74	0.47	0.57
Evadne spp. (n=1931-train=200)	0.96	0.77	0.86
Temora spp. (n=1416-train=200)	0.63	0.35	0.45
Pseudocalanus spp. (n=1044-train=200)	0.47	0.45	0.46
Oithona spp. (n=345-train=200)	0.56	0.80	0.66
Bryozoa (larvae) (n=248-train=119)	0.56	0.83	0.67
Podon/Pleopsis spp. (n=230-train=200)	0.26	0.23	0.25
Calanoida (ci-ciii) (n=130-train=200)	0.01	0.02	0.01
Oikopleura spp. (n=115-train=200)	0.86	0.63	0.73
Centropages spp. (n=88-train=40)	0.85	0.69	0.76
Echinodermata (larvae) (n=50-train=200)	0.31	0.26	0.28
Harpacticoida- epibenthic (n=47-train=136)	0.07	0.60	0.12
Hydrozoa (medusa) (n=47-train=21)	0.60	0.06	0.12
Gastropoda (larvae/Limacina) (n=47-train=110)	0.43	0.64	0.52
Bivalvia (larvae) (n=44-train=71)	0.67	0.80	0.73
Fritillaria spp. (n=34-train=200)	0.25	0.71	0.37
Microcalanus spp. (n=31-train=80)	0.06	0.48	0.11
Chaetognatha (n=28-train=67)	0.66	0.75	0.70
Polychaeta (larvae) (n=20-train=200)	0.12	0.35	0.18
Calanus spp. (n=14-train=200)	0.54	0.93	0.68
Eurytemora spp. (n=10-train=88)	0.01	0.20	0.02
Aglantha spp. (medusa) (n=9-train=21)	0.40	0.67	0.50
Oncaeidae spp. (n=6-train=16)	0.03	0.17	0.05
Sarsia spp. (medusa) (n=4-train=4)	0.33	0.25	0.29
Ostracoda (n=2-train=6)	0.00	0.00	0.00
Tortanus spp. (n=2-train=4)	0.25	0.50	0.33
Decapoda-non brachyura (larvae) (n=1-train=7)	0.00	0.00	0.00
Cirripedia (larvae) (n=0-train=200)	–	–	–
Copepoda (nauplii) (n=0-train=200)	–	–	–
Obelia spp. (medusa) (n=0-train=43)	–	–	–
Euphausiacea (larvae) (n=0-train=75)	–	–	–
Euphausiacea (nauplii) (n=0-train=122)	–	–	–
macro avg (corr)	0.39	0.47	0.39
weighted avg	0.69	0.53	0.58
	precision	recall	f1-score

Predictions of discarded taxa from training

Predicted Taxa	Calanoida (civ-vi) n=1370	Cyclopoida (unid) n=2	Foraminifera n=1	Monstrillidae n=1	Zooplankton (unid) n=318
Acartia spp.	12.7% (n=174)	0.0%	0.0%	0.0%	0.0%
Aglantha spp. (medusa)	0.0%	0.0%	0.0%	0.0%	0.3% (n=1)
Bivalvia (larvae)	0.0%	0.0%	0.0%	0.0%	10.1% (n=32)
Bryozoa (larvae)	1.2% (n=16)	0.0%	0.0%	0.0%	14.2% (n=45)
Calanoida (ci–ciii)	8.2% (n=113)	0.0%	0.0%	0.0%	0.9% (n=3)
Calanus spp.	0.1% (n=1)	0.0%	0.0%	0.0%	0.0%
Centropages spp.	0.1% (n=1)	0.0%	0.0%	0.0%	0.0%
Cirripedia (larvae)	3.6% (n=49)	0.0%	0.0%	0.0%	2.2% (n=7)
Copepoda (nauplii)	6.2% (n=85)	0.0%	0.0%	0.0%	3.5% (n=11)
Echinodermata (larvae)	0.9% (n=13)	0.0%	0.0%	0.0%	2.2% (n=7)
Euphausiacea (larvae)	2.6% (n=35)	0.0%	0.0%	0.0%	0.0%
Euphausiacea (nauplii)	7.6% (n=104)	0.0%	0.0%	0.0%	0.9% (n=3)
Eurytemora spp.	1.7% (n=23)	0.0%	0.0%	100.0% (n=1)	0.0%
Evadne spp.	2.3% (n=31)	50.0% (n=1)	0.0%	0.0%	14.8% (n=47)
Fritillaria spp.	1.5% (n=21)	0.0%	0.0%	0.0%	0.6% (n=2)
Gastropoda (larvae/Limacina)	0.0%	0.0%	100.0% (n=1)	0.0%	11.0% (n=35)
Harpacticoida- epibenthic	9.7% (n=133)	0.0%	0.0%	0.0%	0.6% (n=2)
Hydrozoa (medusa)	0.0%	0.0%	0.0%	0.0%	0.6% (n=2)
Microcalanus spp.	5.5% (n=75)	50.0% (n=1)	0.0%	0.0%	4.4% (n=14)
Obelia spp. (medusa)	0.1% (n=1)	0.0%	0.0%	0.0%	0.0%
Oikopleura spp.	0.1% (n=1)	0.0%	0.0%	0.0%	0.0%
Oithona spp.	16.9% (n=232)	0.0%	0.0%	0.0%	2.5% (n=8)
Oncaeidae spp.	2.0% (n=27)	0.0%	0.0%	0.0%	1.9% (n=6)
Ostracoda	0.0%	0.0%	0.0%	0.0%	1.6% (n=5)
Podon/Pleopsis spp.	0.9% (n=12)	0.0%	0.0%	0.0%	18.9% (n=60)
Polychaeta (larvae)	0.4% (n=5)	0.0%	0.0%	0.0%	7.2% (n=23)
Pseudocalanus spp.	10.8% (n=148)	0.0%	0.0%	0.0%	1.3% (n=4)
Sarsia spp. (medusa)	0.0%	0.0%	0.0%	0.0%	0.3% (n=1)
Temora spp.	5.1% (n=70)	0.0%	0.0%	0.0%	0.0%

Predicted Taxa (y-axis) / Actual discarded Taxa (x-axis)

■ Extra training classes

Relative Abundance of Top Taxonomic Instances per Sample

Most abundant classes (In Val or Pred)
- Acartia spp.
- Bryozoa (larvae)
- Calanoida (ci–ciii)
- Calanoida (civ–vi)
- Evadne spp.
- Oikopleura spp.
- Oithona spp.
- Podon/Pleopsis spp.
- Pseudocalanus spp.
- Temora spp.
- Zooplankton (unid)
- Others