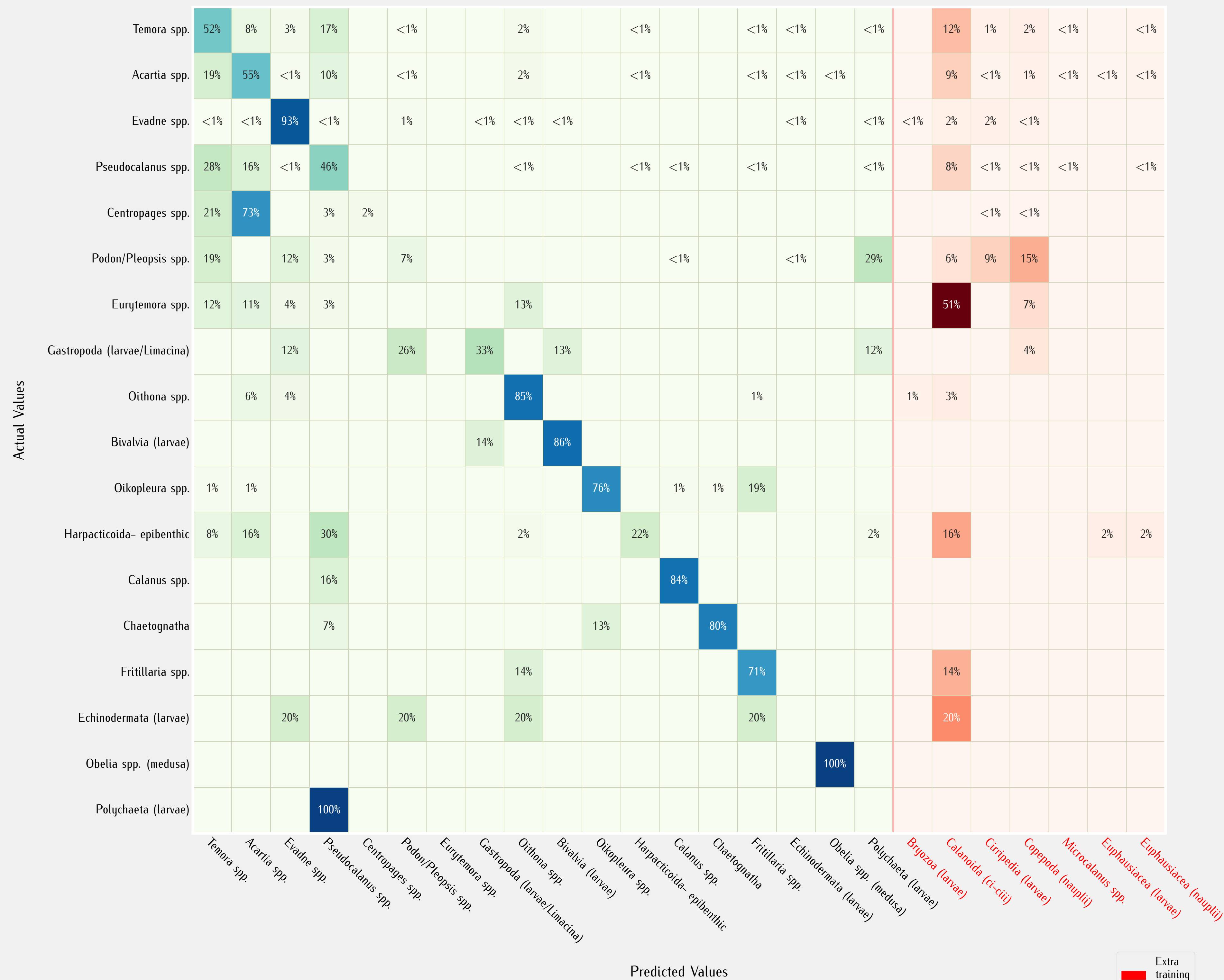


Use of SCN features: Yes
Max learning objects: 5000 objects/class
Strategy N° 4

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



Classification Report Matrix
max 5000 learning objects per class

	precision	recall	f1-score
Temora spp. (n=18103-train=5000)	0.73	0.52	0.61
Acartia spp. (n=13302-train=5000)	0.77	0.55	0.64
Evadne spp. (n=5228-train=2845)	0.87	0.93	0.90
Pseudocalanus spp. (n=3053-train=4552)	0.24	0.46	0.31
Centropages spp. (n=330-train=40)	1.00	0.02	0.05
Podon/Pleopsis spp. (n=253-train=201)	0.14	0.07	0.09
Eurytemora spp. (n=178-train=88)	0.00	0.00	0.00
Gastropoda (larvae/Limacina) (n=112-train=110)	0.52	0.33	0.40
Oithona spp. (n=98-train=1409)	0.11	0.85	0.19
Bivalvia (larvae) (n=92-train=71)	0.77	0.86	0.81
Oikopleura spp. (n=70-train=761)	0.96	0.76	0.85
Harpacticoida- epibenthic (n=50-train=136)	0.28	0.22	0.25
Calanus spp. (n=25-train=213)	0.88	0.84	0.86
Chaetognatha (n=15-train=67)	0.92	0.80	0.86
Fritillaria spp. (n=7-train=3447)	0.06	0.71	0.11
Echinodermata (larvae) (n=5-train=276)	0.00	0.00	0.00
Obelia spp. (medusa) (n=1-train=43)	0.50	1.00	0.67
Polychaeta (larvae) (n=1-train=452)	0.00	0.00	0.00
Bryozoa (larvae) (n=0-train=119)	-	-	-
Calanoida (ci-ciü) (n=0-train=3713)	-	-	-
Cirripedia (larvae) (n=0-train=611)	-	-	-
Copepoda (nauplii) (n=0-train=1025)	-	-	-
Microcalanus spp. (n=0-train=80)	-	-	-
Euphausiacea (larvae) (n=0-train=75)	-	-	-
Euphausiacea (nauplii) (n=0-train=122)	-	-	-
macro avg (corr)	0.49	0.50	0.42
weighted avg	0.72	0.57	0.62

Predictions of discarded taxa from training

Predicted Taxa

Acartia spp.	0.0%	0.0%	0.0%	3.1% (n=1)	0.0%	0.0%	10.5% (n=478)	0.0%	1.6% (n=1)	0.0%	0.0%	3.4% (n=38)
Bivalvia (larvae)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	7.7% (n=86)
Bryozoa (larvae)	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=5)
Calanoida (ci-ciii)	0.0%	0.0%	0.0%	12.5% (n=4)	0.0%	0.0%	27.3% (n=1244)	0.0%	1.6% (n=1)	0.0%	0.0%	6.1% (n=68)
Calanus spp.	50.0% (n=5)	100.0% (n=1)	50.0% (n=3)	0.0%	28.6% (n=4)	0.0%	0.0% (n=2)	100.0% (n=2)	6.2% (n=4)	50.0% (n=1)	0.0%	0.0%
Cirripedia (larvae)	0.0%	0.0%	0.0%	0.0%	14.3% (n=2)	0.0%	2.3% (n=106)	0.0%	15.6% (n=10)	0.0%	0.0%	1.6% (n=18)
Copepoda (nauplii)	0.0%	0.0%	0.0%	0.0%	0.0%	50.0% (n=1)	7.8% (n=357)	0.0%	3.1% (n=2)	0.0%	0.0%	3.9% (n=44)
Echinodermata (larvae)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1% (n=4)	0.0%	0.0%	0.0%	0.0%	0.5% (n=6)
Euphausiacea (nauplii)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5% (n=21)	0.0%	0.0%	0.0%	0.0%	0.0%
Evadne spp.	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	12.1% (n=552)	0.0%	18.8% (n=12)	0.0%	0.0%	49.0% (n=550)
Fritillaria spp.	0.0%	0.0%	16.7% (n=1)	0.0%	0.0%	0.0%	0.4% (n=20)	0.0%	3.1% (n=2)	0.0%	0.0%	0.7% (n=8)
Gastropoda (larvae/Limacina)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0% (n=2)	0.0%	0.0%	0.0%	0.0%	5.7% (n=64)
Harpacticoida- epibenthic	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1% (n=4)	0.0%	0.0%	0.0%	0.0%	0.0%
Microcalanus spp.	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2% (n=9)	0.0%	0.0%	0.0%	0.0%	0.0%
Obelia spp. (medusa)	50.0% (n=5)	0.0%	33.3% (n=2)	0.0%	0.0%	0.0%	0.0%	0.0%	23.4% (n=15)	0.0%	0.0%	0.0%
Oikopleura spp.	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0% (n=1)	0.3% (n=3)
Oithona spp.	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.2% (n=376)	0.0%	0.0%	0.0%	0.0%	1.4% (n=16)
Podon/Pleopsis spp.	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8% (n=37)	0.0%	0.0%	0.0%	0.0%	10.2% (n=115)
Polychaeta (larvae)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.9% (n=86)	0.0%	25.0% (n=16)	0.0%	0.0%	6.6% (n=74)
Pseudocalanus spp.	0.0%	0.0%	0.0%	78.1% (n=25)	50.0% (n=7)	0.0%	13.7% (n=627)	0.0%	0.0%	50.0% (n=1)	0.0%	0.6% (n=7)
Temora spp.	0.0%	0.0%	0.0%	6.2% (n=2)	7.1% (n=1)	50.0% (n=1)	14.0% (n=637)	0.0%	1.6% (n=1)	0.0%	0.0%	1.9% (n=21)



Extra training classes

Aglantha spp. (medusa)
n=10
Amphipoda
n=1
Anthoathecata (medusa)
n=6
Calanoida (unid)
n=32
Chiridius spp.
n=14
Cnidaria (larvae)
n=2
Copepoda (larvae)
n=4562
Decapoda (unid)
n=2
Hydrozoa non brachyura (larvae)
n=64
Metridia (medusa)
n=2
Tomopteris spp.
n=1
Zooplankton (unid)
n=1123

Actual discarded Taxa

Relative Abundance of Top Taxonomic Instances per Sample

