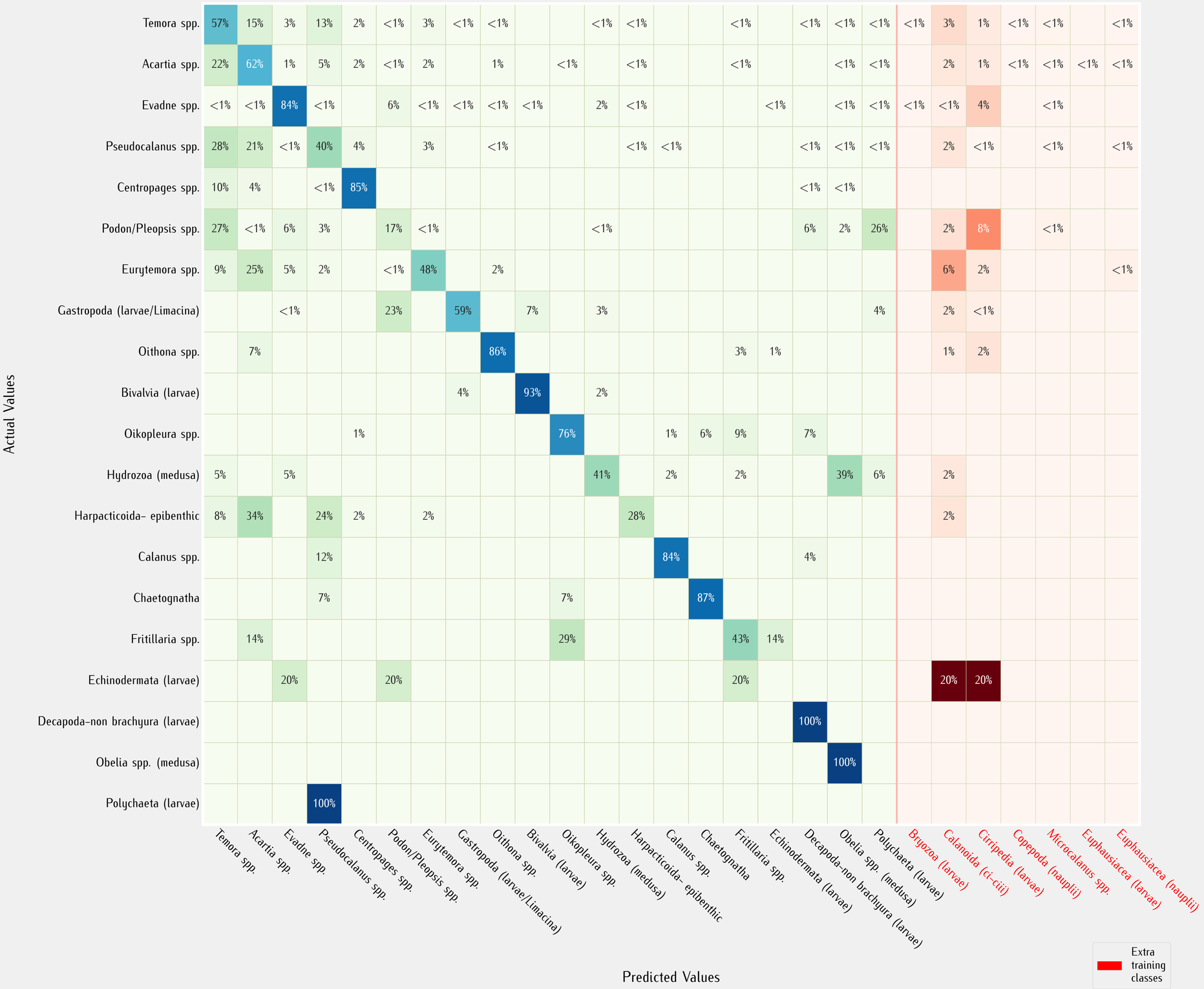
Use of SCN features: No
Max learning objects: 20000 objects/class
Strategy N° 8

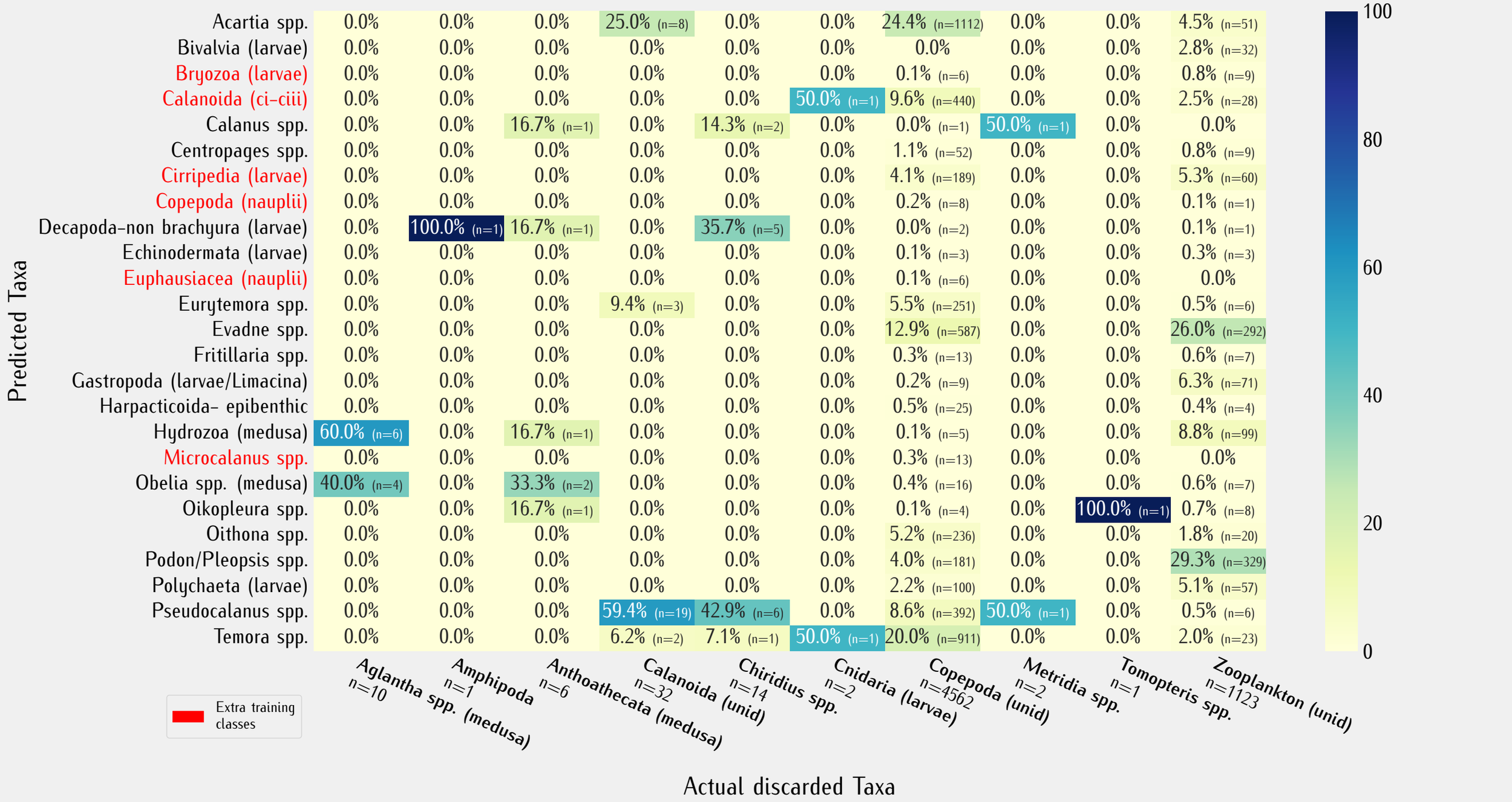
NL 2020 Selected Samples prediction using all regions training set, Learning with selected samples classes with no low global training instances, with extra regional training categories, No Anthoathecata, Calanoida, Copepoda, Zooplankton classes in learning set

Confusion Matrix – In percent of Actual Value



Classification Report Matrix
max 20000 learning objects per class

	precision	recall	f1-score
Temora spp. (n=18103-train=7347)	0.73	0.57	0.64
Acartia spp. (n=13302-train=20000)	0.71	0.62	0.66
Evadne spp. (n=5228-train=11064)	0.86	0.84	0.85
Pseudocalanus spp. (n=3053-train=4845)	0.29	0.40	0.33
Centropages spp. (n=330-train=3620)	0.28	0.85	0.43
Podon/Pleopsis spp. (n=253-train=7347)	0.09	0.17	0.12
Eurytemora spp. (n=178-train=1818)	0.08	0.48	0.14
Gastropoda (larvae/Limacina) (n=112-train=3272)	0.53	0.59	0.56
Oithona spp. (n=98-train=5881)	0.20	0.86	0.33
Bivalvia (larvae) (n=92-train=3764)	0.91	0.93	0.92
Oikopleura spp. (n=70-train=5305)	0.79	0.76	0.77
Hydrozoa (medusa) (n=64-train=4052)	0.18	0.41	0.25
Harpacticoida- epibenthic (n=50-train=555)	0.16	0.28	0.20
Calanus spp. (n=25-train=359)	0.88	0.84	0.86
Chaetognatha (n=15-train=89)	0.76	0.87	0.81
Fritillaria spp. (n=7-train=6992)	0.05	0.43	0.09
Echinodermata (larvae) (n=5-train=3043)	0.00	0.00	0.00
Decapoda-non brachyura (larvae) (n=2-train=423)	0.07	1.00	0.12
Obelia spp. (medusa) (n=1-train=1003)	0.01	1.00	0.03
Polychaeta (larvae) (n=1-train=1577)	0.00	0.00	0.00
Bryozoa (larvae) (n=0-train=1142)	–	–	–
Calanoida (ci-ciii) (n=0-train=5557)	–	–	–
Cirripedia (larvae) (n=0-train=7685)	–	–	–
Copepoda (nauplii) (n=0-train=11555)	–	–	–
Microcalanus spp. (n=0-train=80)	–	–	–
Euphausiacea (larvae) (n=0-train=87)	–	–	–
Euphausiacea (nauplii) (n=0-train=145)	–	–	–
macro avg (corr)	0.38	0.60	0.41
weighted avg	0.69	0.61	0.64
	precision	recall	f1-score


Predictions of discarded taxa from training
Predicted Taxa
Actual discarded Taxa
Acartia spp. 0.0% 0.0% 0.0% 25.0% (n=8) 0.0% 0.0% 24.4% (n=1112) 0.0% 0.0% 4.5% (n=51)
Bivalvia (larvae) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 2.8% (n=32)
Bryozoa (larvae) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.1% (n=6) 0.0% 0.0% 0.8% (n=9)
Calanoida (ci-ciii) 0.0% 0.0% 0.0% 0.0% 0.0% 50.0% (n=1) 9.6% (n=440) 0.0% 0.0% 2.5% (n=28)
Calanus spp. 0.0% 0.0% 16.7% (n=1) 0.0% 14.3% (n=2) 0.0% 0.0% (n=1) 50.0% (n=1) 0.0% 0.0%
Centropages spp. 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 1.1% (n=52) 0.0% 0.0% 0.8% (n=9)
Cirripedia (larvae) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 4.1% (n=189) 0.0% 0.0% 5.3% (n=60)
Copepoda (nauplii) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.2% (n=8) 0.0% 0.0% 0.1% (n=1)
Decapoda-non brachyura (larvae) 0.0% 100.0% (n=1) 16.7% (n=1) 0.0% 35.7% (n=5) 0.0% 0.0% (n=2) 0.0% 0.0% 0.1% (n=1)
Echinodermata (larvae) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.1% (n=3) 0.0% 0.0% 0.3% (n=3)
Euphausiacea (nauplii) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.1% (n=6) 0.0% 0.0% 0.0%
Eurytemora spp. 0.0% 0.0% 0.0% 9.4% (n=3) 0.0% 0.0% 5.5% (n=251) 0.0% 0.0% 0.5% (n=6)
Evadne spp. 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 12.9% (n=587) 0.0% 0.0% 26.0% (n=292)
Fritillaria spp. 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.3% (n=13) 0.0% 0.0% 0.6% (n=7)
Gastropoda (larvae/Limacina) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.2% (n=9) 0.0% 0.0% 6.3% (n=71)
Harpacticoida- epibenthic 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.5% (n=25) 0.0% 0.0% 0.4% (n=4)
Hydrozoa (medusa) 60.0% (n=6) 0.0% 16.7% (n=1) 0.0% 0.0% 0.0% 0.1% (n=5) 0.0% 0.0% 8.8% (n=99)
Microcalanus spp. 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.3% (n=13) 0.0% 0.0% 0.0%
Obelia spp. (medusa) 40.0% (n=4) 0.0% 33.3% (n=2) 0.0% 0.0% 0.0% 0.4% (n=16) 0.0% 0.0% 0.6% (n=7)
Oikopleura spp. 0.0% 0.0% 16.7% (n=1) 0.0% 0.0% 0.0% 0.1% (n=4) 0.0% 100.0% (n=1) 0.7% (n=8)
Oithona spp. 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 5.2% (n=236) 0.0% 0.0% 1.8% (n=20)
Podon/Pleopsis spp. 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 4.0% (n=181) 0.0% 0.0% 29.3% (n=329)
Polychaeta (larvae) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 2.2% (n=100) 0.0% 0.0% 5.1% (n=57)
Pseudocalanus spp. 0.0% 0.0% 0.0% 59.4% (n=19) 42.9% (n=6) 0.0% 8.6% (n=392) 50.0% (n=1) 0.0% 0.5% (n=6)
Temora spp. 0.0% 0.0% 0.0% 6.2% (n=2) 7.1% (n=1) 50.0% (n=1) 20.0% (n=911) 0.0% 0.0% 2.0% (n=23)
100
80
60
40
20
0
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 (unid) n=4562
Metridia spp. n=2
Tomopteris spp. n=1
Zooplankton (unid) n=1123

Relative Abundance of Top Taxonomic Instances per Sample

Val Pred Val Pred Val Pred Val Pred Val Pred Val Pred Val Pred Val Pred Val Pred Val Pred

1.0
0.8
0.6
0.4
0.2
0.0

Relative Abundance

S21 S22 S23 S24 S25 S26 S27 S28 S29 S30

Sample Short ID

Most abundant classes (In Val or Pred)
- Acartia spp.
- Centropages spp.
- Copepoda (unid)
- Eurytemora spp.
- Evadne spp.
- Gastropoda (larvae/Limacina)
- Oithona spp.
- Podon/Pleopsis spp.
- Pseudocalanus spp.
- Temora spp.
- Zooplankton (unid)
- Others