NL 2020 Selected Samples prediction using NL 2020 training set,
Learning with all classes present in the selected samples, with extra training categories,
No Anthoathecata, Calanoida, Copepoda, Zooplankton classes in learning set
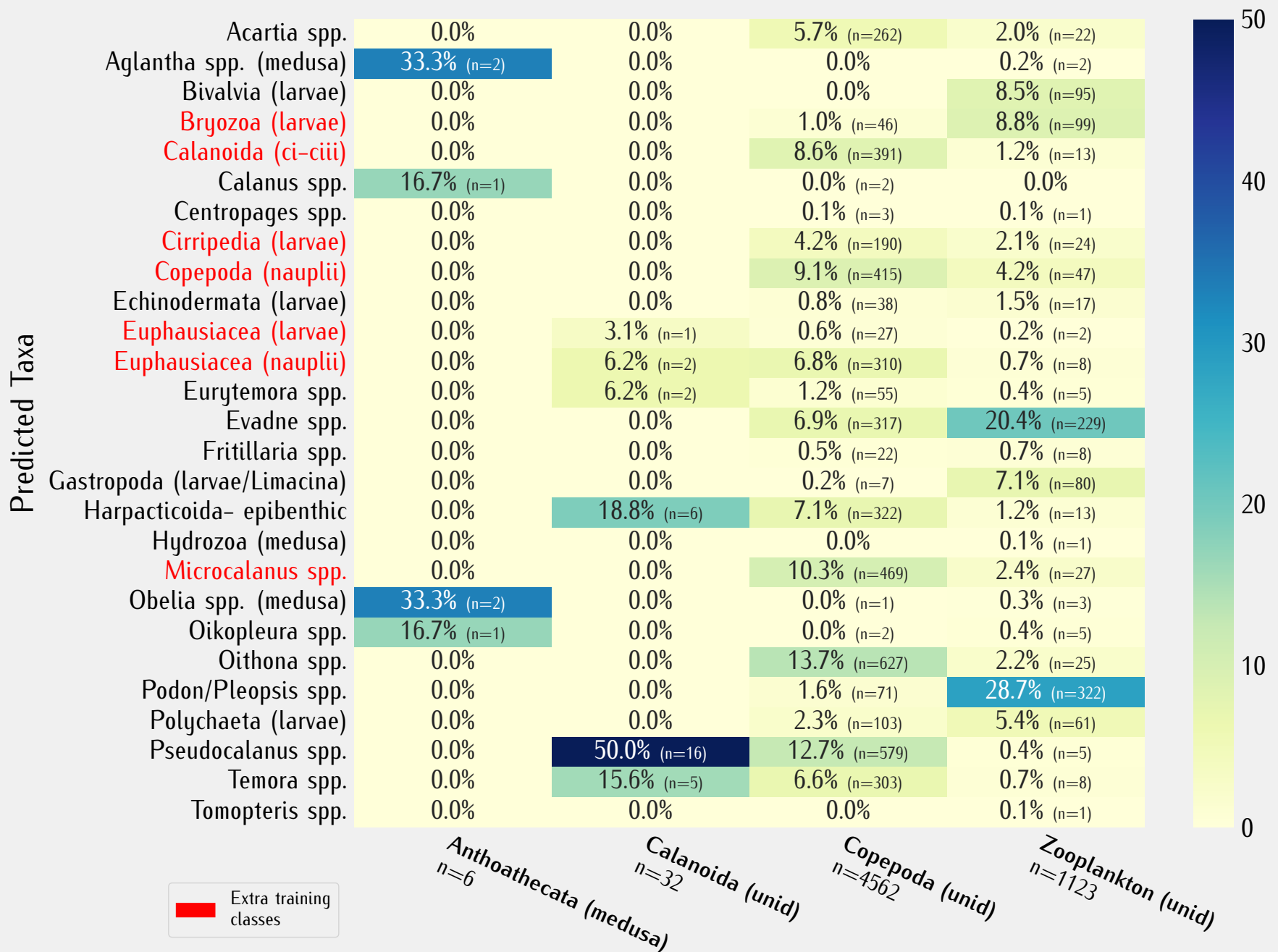
Use of SCN features: Yes
Max learning objects: 200 objects/class
Strategy N° 2

Confusion Matrix – In percent of Actual Value

Actual Values

Predicted Values

Extra training classes
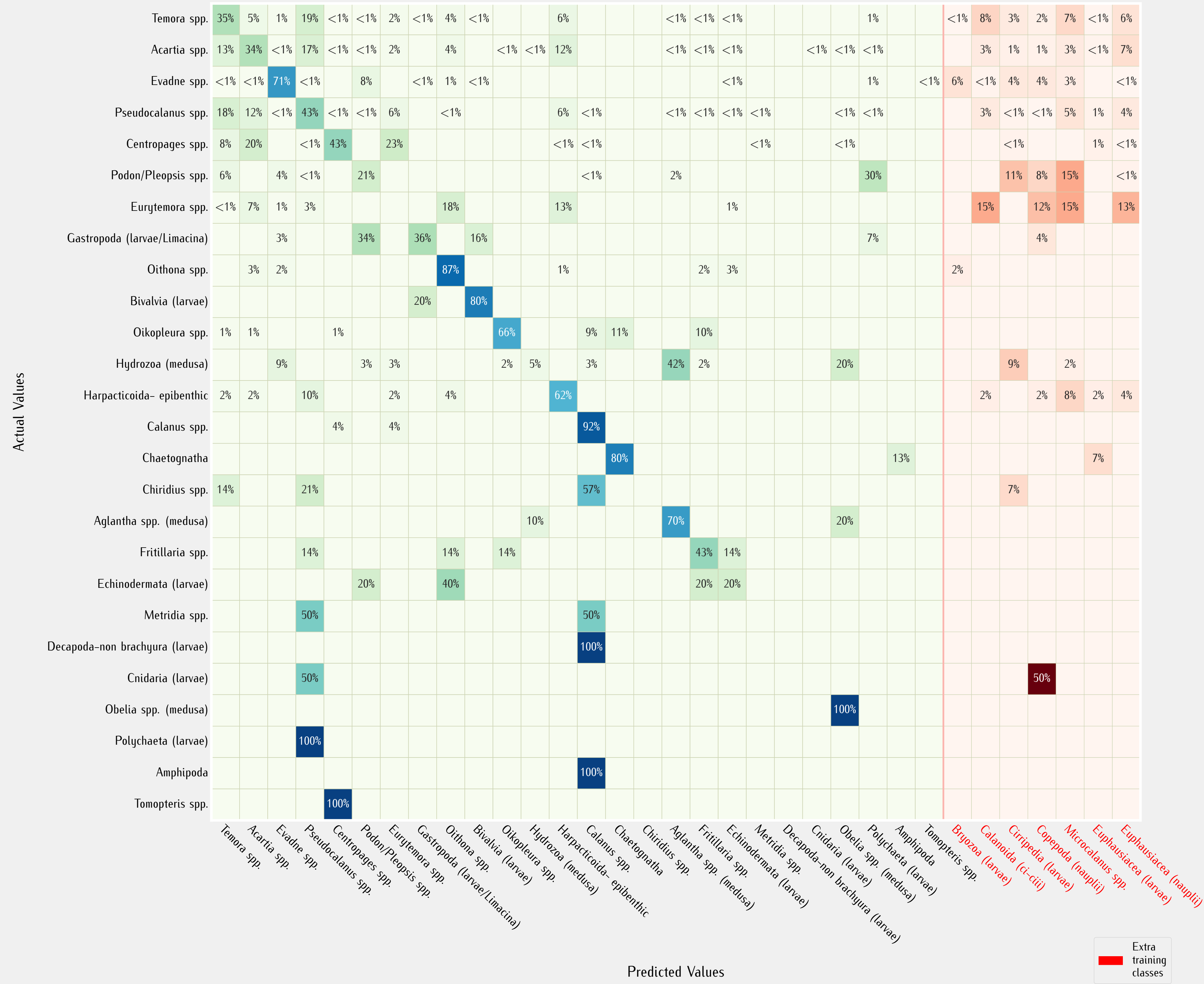
Classification Report Matrix
max 200 learning objects per class

	precision	recall	f1-score
Temora spp. (n=18103-train=200)	0.73	0.35	0.47
Acartia spp. (n=13302-train=200)	0.78	0.34	0.47
Evadne spp. (n=5228-train=200)	0.93	0.71	0.81
Pseudocalanus spp. (n=3053-train=200)	0.19	0.43	0.26
Centropages spp. (n=330-train=40)	0.82	0.43	0.57
Podon/Pleopsis spp. (n=253-train=200)	0.10	0.21	0.13
Eurytemora spp. (n=178-train=88)	0.00	0.00	0.00
Gastropoda (larvae/Limacina) (n=112-train=110)	0.44	0.36	0.39
Oithona spp. (n=98-train=200)	0.06	0.87	0.11
Bivalvia (larvae) (n=92-train=71)	0.70	0.80	0.75
Oikopleura spp. (n=70-train=200)	0.88	0.66	0.75
Hydrozoa (medusa) (n=64-train=21)	0.60	0.05	0.09
Harpacticoida- epibenthic (n=50-train=136)	0.01	0.62	0.02
Calanus spp. (n=25-train=200)	0.48	0.92	0.63
Chaetognatha (n=15-train=67)	0.60	0.80	0.69
Chiridius spp. (n=14-train=1)	0.00	0.00	0.00
Aglantha spp. (medusa) (n=10-train=21)	0.09	0.70	0.16
Fritillaria spp. (n=7-train=200)	0.03	0.43	0.05
Echinodermata (larvae) (n=5-train=200)	0.01	0.20	0.01
Metridia spp. (n=2-train=15)	0.00	0.00	0.00
Decapoda-non brachyura (larvae) (n=2-train=7)	0.00	0.00	0.00
Cnidaria (larvae) (n=2-train=3)	0.00	0.00	0.00
Obelia spp. (medusa) (n=1-train=43)	0.03	1.00	0.06
Polychaeta (larvae) (n=1-train=200)	0.00	0.00	0.00
Amphipoda (n=1-train=1)	0.00	0.00	0.00
Tomopteris spp. (n=1-train=1)	0.00	0.00	0.00
Bryozoa (larvae) (n=0-train=119)	–	–	–
Calanoida (ci-ciii) (n=0-train=200)	–	–	–
Cirripedia (larvae) (n=0-train=200)	–	–	–
Copepoda (nauplii) (n=0-train=200)	–	–	–
Microcalanus spp. (n=0-train=80)	–	–	–
Euphausiacea (larvae) (n=0-train=75)	–	–	–
Euphausiacea (nauplii) (n=0-train=122)	–	–	–
macro avg (corr)	0.29	0.38	0.25
weighted avg	0.72	0.40	0.49
	precision	recall	f1-score

Predictions of discarded taxa from training

Predicted Taxa	Anthoathecata (medusa) n=6	Calanoida (unid) n=32	Copepoda (unid) n=4562	Zooplankton (unid) n=1123
Acartia spp.	0.0%	0.0%	5.7% (n=262)	2.0% (n=22)
Aglantha spp. (medusa)	33.3% (n=2)	0.0%	0.0%	0.2% (n=2)
Bivalvia (larvae)	0.0%	0.0%	0.0%	8.5% (n=95)
Bryozoa (larvae)	0.0%	0.0%	1.0% (n=46)	8.8% (n=99)
Calanoida (ci-ciii)	0.0%	0.0%	8.6% (n=391)	1.2% (n=13)
Calanus spp.	16.7% (n=1)	0.0%	0.0% (n=2)	0.0%
Centropages spp.	0.0%	0.0%	0.1% (n=3)	0.1% (n=1)
Cirripedia (larvae)	0.0%	0.0%	4.2% (n=190)	2.1% (n=24)
Copepoda (nauplii)	0.0%	0.0%	9.1% (n=415)	4.2% (n=47)
Echinodermata (larvae)	0.0%	0.0%	0.8% (n=38)	1.5% (n=17)
Euphausiacea (larvae)	0.0%	3.1% (n=1)	0.6% (n=27)	0.2% (n=2)
Euphausiacea (nauplii)	0.0%	6.2% (n=2)	6.8% (n=310)	0.7% (n=8)
Eurytemora spp.	0.0%	6.2% (n=2)	1.2% (n=55)	0.4% (n=5)
Evadne spp.	0.0%	0.0%	6.9% (n=317)	20.4% (n=229)
Fritillaria spp.	0.0%	0.0%	0.5% (n=22)	0.7% (n=8)
Gastropoda (larvae/Limacina)	0.0%	0.0%	0.2% (n=7)	7.1% (n=80)
Harpacticoida- epibenthic	0.0%	18.8% (n=6)	7.1% (n=322)	1.2% (n=13)
Hydrozoa (medusa)	0.0%	0.0%	0.0%	0.1% (n=1)
Microcalanus spp.	0.0%	0.0%	10.3% (n=469)	2.4% (n=27)
Obelia spp. (medusa)	33.3% (n=2)	0.0%	0.0% (n=1)	0.3% (n=3)
Oikopleura spp.	16.7% (n=1)	0.0%	0.0% (n=2)	0.4% (n=5)
Oithona spp.	0.0%	0.0%	13.7% (n=627)	2.2% (n=25)
Podon/Pleopsis spp.	0.0%	0.0%	1.6% (n=71)	28.7% (n=322)
Polychaeta (larvae)	0.0%	0.0%	2.3% (n=103)	5.4% (n=61)
Pseudocalanus spp.	0.0%	50.0% (n=16)	12.7% (n=579)	0.4% (n=5)
Temora spp.	0.0%	15.6% (n=5)	6.6% (n=303)	0.7% (n=8)
Tomopteris spp.	0.0%	0.0%	0.0%	0.1% (n=1)

Extra training classes

Actual discarded Taxa

Relative Abundance of Top Taxonomic Instances per Sample

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