

Use of SCN features: Yes  
Max learning objects: 20000 objects/class  
Strategy N° 2

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

Confusion Matrix – In percent of Actual Value

Classification Report Matrix  
max 20000 learning objects per class

Actual Values

Cirripedia (larvae)	76%	2%	<1%	15%	<1%	1%		<1%	<1%	<1%	<1%	<1%		<1%	1%	1%			<1%	<1%					<1%		<1%		<1%	
Acartia spp.	1%	80%	<1%	<1%	<1%	<1%	6%	<1%	9%					<1%	<1%	<1%	<1%			<1%			<1%	<1%						
Oikopleura spp.	2%	2%	82%	3%	2%	1%	<1%	<1%	1%		<1%	<1%	<1%	<1%	2%	3%	<1%			<1%	<1%		<1%	<1%					<1%	
Podon/Pleopsis spp.	10%	2%	<1%	53%		12%	<1%	1%	12%	<1%		2%	3%		<1%	<1%	2%							1%					<1%	
Fritillaria spp.	<1%	8%	52%	<1%	32%	2%	<1%		<1%			<1%	<1%		4%	<1%					<1%									
Evadne spp.	8%	2%	<1%	11%		67%	<1%		4%		<1%		5%		<1%	<1%		<1%						<1%					<1%	
Corycaeidae	<1%	13%	2%	1%		<1%	73%	<1%	5%					<1%		1%	<1%		<1%		<1%		<1%						<1%	
Calanoida (ci-ciii)	17%	17%	<1%	15%		5%	11%	11%	8%			3%			9%									3%					1%	
Paracalanus spp.	<1%	8%	<1%	1%		1%	<1%		80%				1%	<1%			<1%						1%	3%						
Gastropoda (larvae/Limacina)	8%	5%		45%		5%		<1%	2%	22%	7%	<1%	2%		<1%									2%						
Bivalvia (larvae)				11%			1%				1%	78%												1%					7%	
Polychaeta (larvae)	23%	8%		18%		3%	3%		8%			22%	5%		2%	2%	3%		5%											
Hydrozoa (medusa)			2%	2%		5%			2%				84%			5%														
Centropages spp.		24%	4%				2%		2%			2%		18%		2%	6%		16%		16%			2%	6%					
Echinodermata (larvae)	2%			17%	2%	50%			2%				14%			10%								2%						
Calycophorae (nectophore)												3%	8%			78%	5%		5%											
Decapoda-brachyura (zoeae)		3%							3%				3%			6%	81%		3%											
Ctenophora (larvae)	3%			16%		16%						6%	48%			3%		6%												
Decapoda-non brachyura (larvae)		4%				4%							12%			12%		69%												
Ostracoda				8%		36%	4%				20%								4%										28%	
Tortanus spp.	4%	8%												4%		25%	17%		12%		29%									
Ascidacea (larvae)			57%																		43%									
Oithona spp.		59%	6%		12%		6%						12%						6%											
Pseudocalanus spp.									43%							14%		14%				29%								
Calanus spp.													17%			17%	17%		33%					17%						
Copepoda (nauplii)	25%			25%				25%																25%						
Euphysa spp. (medusa)																100%														
Bryozoa (larvae)	100%																													
	Cirripedia (larvae)	Acartia spp.	Oikopleura spp.	Podon/Pleopsis spp.	Fritillaria spp.	Evadne spp.	Corycaeidae	Calanoida (ci-ciii)	Paracalanus spp.	Gastropoda (larvae/Limacina)	Bivalvia (larvae)	Polychaeta (larvae)	Hydrozoa (medusa)	Centropages spp.	Echinodermata (larvae)	Calycophorae (larvae)	Decapoda-brachyura (larvae)	Ctenophora (nectophore)	Decapoda-non brachyura (larvae)	Ostracoda	Tortanus spp.	Ascidacea (larvae)	Oithona spp.	Pseudocalanus spp.	Calanus spp.	Copepoda (nauplii)	Euphysa spp. (medusa)	Bryozoa (larvae)	Haracticoida (larvae)	Platyhelminthes (larvae)

Extra  
training  
classes

	precision	recall	f1-score
Cirripedia (larvae) (n=3231–train=6358)	0.92	0.76	0.83
Acartia spp. (n=2290–train=4410)	0.88	0.80	0.84
Oikopleura spp. (n=1773–train=4507)	0.82	0.82	0.82
Podon/Pleopsis spp. (n=607–train=3605)	0.32	0.53	0.40
Fritillaria spp. (n=475–train=844)	0.80	0.32	0.46
Evadne spp. (n=358–train=981)	0.53	0.67	0.59
Corycaeidae (n=335–train=1760)	0.59	0.73	0.65
Calanoida (ci-ciüi) (n=150–train=313)	0.37	0.11	0.17
Paracalanus spp. (n=141–train=1525)	0.23	0.80	0.35
Gastropoda (larvae/Limacina) (n=126–train=291)	0.82	0.22	0.35
Bivalvia (larvae) (n=96–train=119)	0.77	0.78	0.77
Polychaeta (larvae) (n=65–train=661)	0.28	0.22	0.24
Hydrozoa (medusa) (n=55–train=301)	0.32	0.84	0.46
Centropages spp. (n=50–train=119)	0.26	0.18	0.21
Echinodermata (larvae) (n=42–train=2649)	0.00	0.00	0.00
Calycophorae (nectophore) (n=37–train=966)	0.18	0.78	0.30
Decapoda-brachyura (zoeae) (n=32–train=343)	0.25	0.81	0.38
Ctenophora (larvae) (n=31–train=29)	0.67	0.06	0.12
Decapoda-non brachyura (larvae) (n=26–train=219)	0.44	0.69	0.54
Ostracoda (n=25–train=18)	0.07	0.04	0.05
Tortanus spp. (n=24–train=88)	0.26	0.29	0.27
Ascidiaacea (larvae) (n=23–train=54)	0.83	0.43	0.57
Oithona spp. (n=17–train=44)	0.00	0.00	0.00
Pseudocalanus spp. (n=7–train=65)	0.22	0.29	0.25
Calanus spp. (n=6–train=37)	0.11	0.17	0.13
Copepoda (nauplii) (n=4–train=233)	0.03	0.25	0.06
Euphysa spp. (medusa) (n=3–train=3)	0.00	0.00	0.00
Bryozoa (larvae) (n=1–train=50)	0.00	0.00	0.00
Harpacticoida- epibenthic (n=0–train=47)	–	–	–
Platyhelminthes/Nemertea (larvae) (n=0–train=145)	–	–	–
macro avg (corr)	0.39	0.41	0.35
weighted avg	0.78	0.71	0.72
	precision	recall	f1-score

0.8

0.6

0.4

0.2

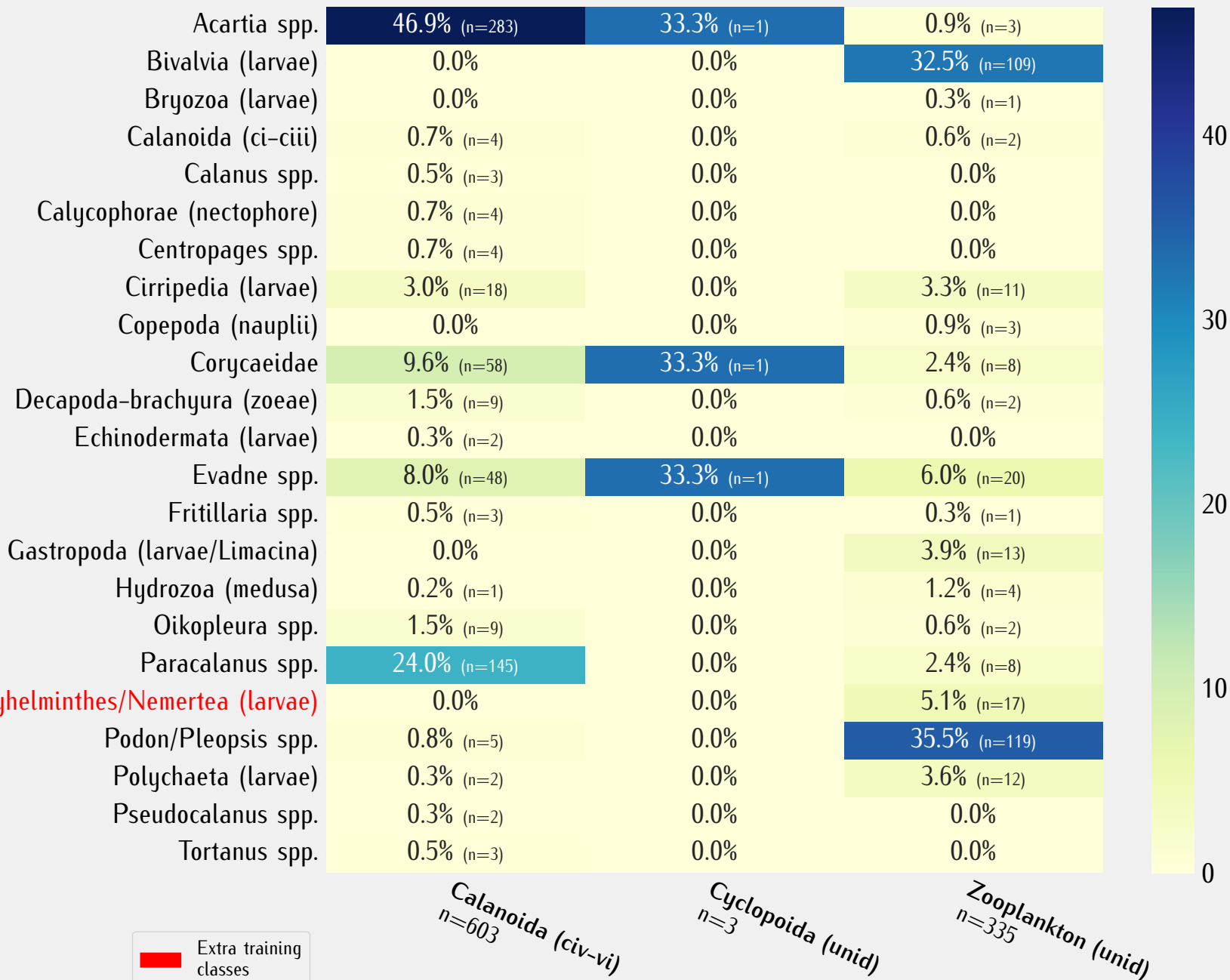
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# Predictions of discarded taxa from training

Predicted Taxa

Platyhelminthes/Nemertea (larvae)

Extra training classes



Actual discarded Taxa

Relative Abundance of Top Taxonomic Instances per Sample

