

Use of SCN features: Yes
Max learning objects: 20000 objects/class
Strategy N° 4

PA Selected Samples prediction using PA training set,
Learning with selected samples classes with no low regional training instances, 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%	1%	<1%	15%	<1%	1%	<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%					
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.	9%	2%	<1%	57%	<1%	11%	<1%	<1%	10%	<1%		2%	3%			<1%	2%						1%			
Fritillaria spp.	<1%	8%	52%	<1%	32%	2%	<1%		<1%			<1%	<1%		4%	<1%										
Evadne spp.	8%	2%	<1%	11%		66%	<1%	<1%	4%		<1%	<1%	5%		<1%	<1%						<1%				<1%
Corycaeidae	<1%	14%	2%	1%		1%	71%	<1%	5%					<1%		1%	<1%	<1%	<1%			<1%				<1%
Calanoida (ci-ciui)	17%	17%	<1%	14%		4%	10%	11%	9%			3%			10%							3%				<1%
Paracalanus spp.	<1%	7%	<1%	1%		2%	<1%		82%					<1%		<1%	<1%				3%					
Gastropoda (larvae/Limacina)	6%	5%		50%		4%		2%	3%	20%	7%	2%	<1%		<1%							<1%				
Bivalvia (larvae)				14%			1%				76%											1%				8%
Polychaeta (larvae)	25%	6%		17%		5%	3%		6%			23%	5%		2%	2%	3%	5%								
Hydrozoa (medusa)			2%	2%		4%			2%				84%			5%	2%									
Centropages spp.		26%	2%				2%		2%			2%		20%		2%	8%	16%	16%			4%				
Echinodermata (larvae)	2%			17%	2%	50%						2%	14%			10%						2%				
Calycophorae (nectophore)								3%						8%		78%	5%	5%								
Decapoda-brachyura (zoeae)				3%					6%				3%		6%	72%	9%									
Decapoda-non brachyura (larvae)		4%				4%							12%			12%	69%									
Tortanus spp.	4%	4%											8%		25%	12%	12%	33%								
Ascidacea (larvae)			61%																39%							
Oithona spp.		65%	6%		12%								12%				6%									
Pseudocalanus spp.									43%					14%		14%				29%						
Copepoda (nauplii)	25%			50%				25%																		
Bryozoa (larvae)	100%																									

Predicted Values

Extra
training
classes

	precision	recall	f1-score
Cirripedia (larvae) (n=3231-train=6358)	0.92	0.76	0.84
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)	0.33	0.57	0.42
Fritillaria spp. (n=475-train=844)	0.80	0.32	0.46
Evadne spp. (n=358-train=981)	0.55	0.66	0.60
Corycaeidae (n=335-train=1760)	0.58	0.71	0.64
Calanoida (ci-ciui) (n=150-train=313)	0.35	0.11	0.16
Paracalanus spp. (n=141-train=1525)	0.24	0.82	0.37
Gastropoda (larvae/Limacina) (n=126-train=291)	0.81	0.20	0.32
Bivalvia (larvae) (n=96-train=119)	0.83	0.76	0.79
Polychaeta (larvae) (n=65-train=661)	0.27	0.23	0.25
Hydrozoa (medusa) (n=55-train=301)	0.38	0.84	0.53
Centropages spp. (n=50-train=119)	0.26	0.20	0.23
Echinodermata (larvae) (n=42-train=2649)	0.00	0.00	0.00
Calycophorae (nectophore) (n=37-train=966)	0.19	0.78	0.31
Decapoda-brachyura (zoeae) (n=32-train=343)	0.23	0.72	0.35
Decapoda-non brachyura (larvae) (n=26-train=219)	0.44	0.69	0.54
Tortanus spp. (n=24-train=88)	0.27	0.33	0.30
Ascidacea (larvae) (n=23-train=54)	0.90	0.39	0.55
Oithona spp. (n=17-train=44)	0.00	0.00	0.00
Pseudocalanus spp. (n=7-train=65)	0.12	0.29	0.17
Copepoda (nauplii) (n=4-train=233)	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)	0.42	0.46	0.39
weighted avg	0.78	0.71	0.73
	precision	recall	f1-score

0.8

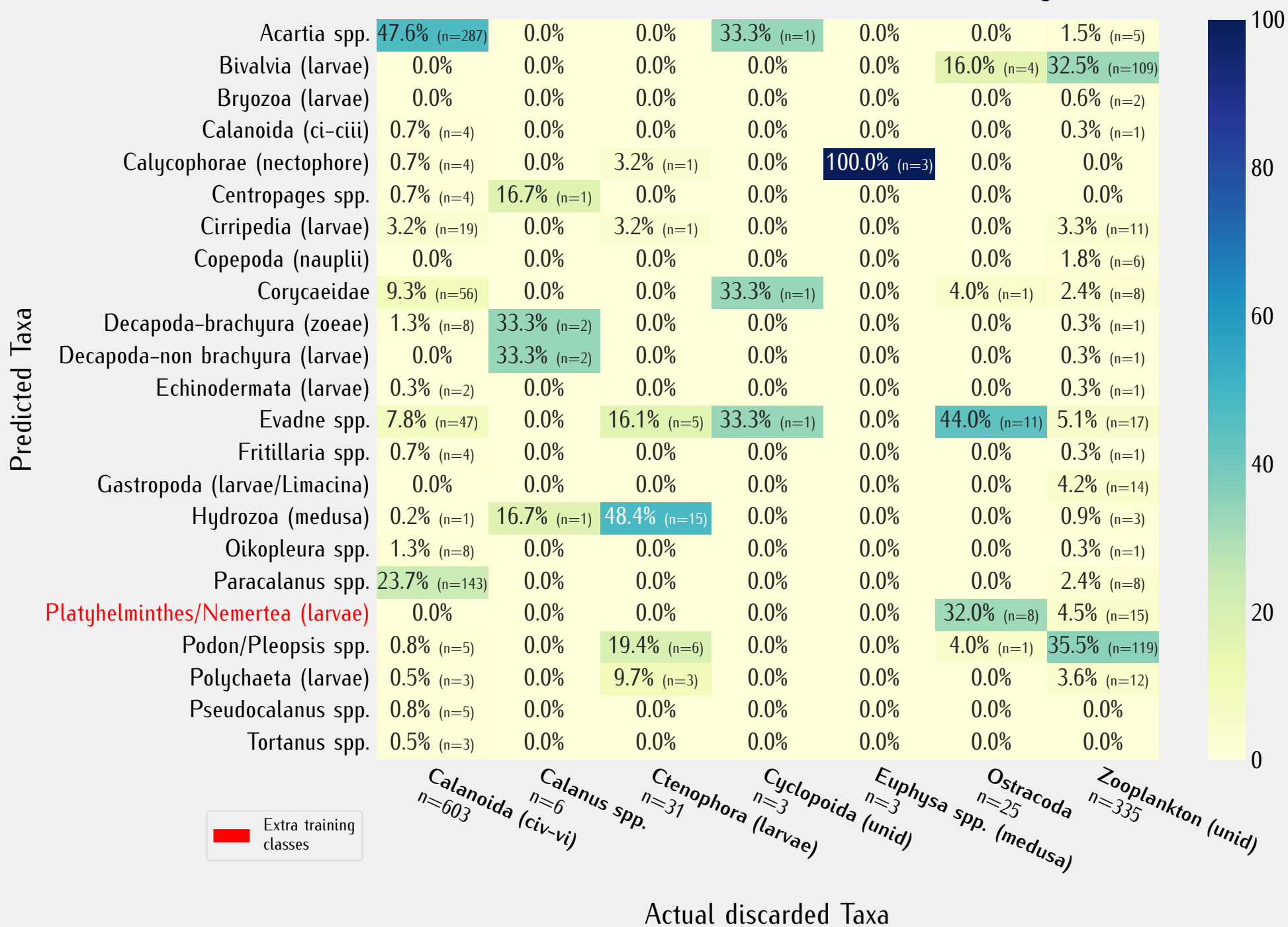
0.6

0.4

0.2

0.0

Predictions of discarded taxa from training



Relative Abundance of Top Taxonomic Instances per Sample

