

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

NL 2021 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 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

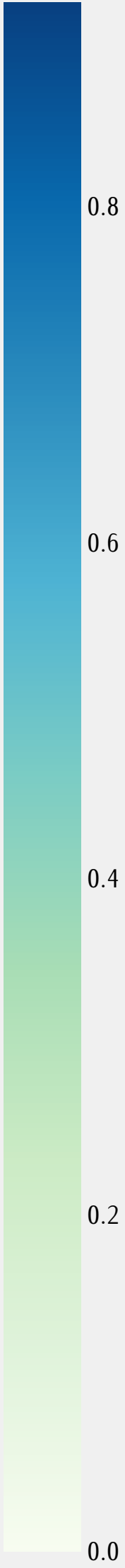
Actual Values

Decapoda-non brachyura (larvae)	Acartia spp.	79%	<1%	7%	5%	1%		<1%	2%	<1%	3%			<1%			<1%	<1%		<1%		<1%		<1%					
	Evadne spp.	<1%	88%	<1%	<1%	<1%	<1%	4%	<1%				2%	<1%	4%	<1%			<1%					2%	<1%	<1%			
	Temora spp.	18%	2%	57%	7%	1%	<1%	<1%	6%			5%			<1%					3%				2%	<1%	<1%	<1%	<1%	
	Pseudocalanus spp.	29%		11%	48%				3%			5%					<1%			<1%	3%		<1%			<1%			
	Oithona spp.	14%	<1%	<1%		77%			1%	<1%	<1%	<1%				3%				<1%				<1%					
	Bryozoa (larvae)		21%			<1%	58%	2%	1%	<1%		<1%		<1%	8%		<1%		<1%					4%	2%				
	Podon/Pleopsis spp.	2%	12%	23%	<1%		1%	29%	3%	<1%	<1%				<1%					10%		<1%		4%	10%	<1%	1%		
	Calanoida (ci-ciii)	18%	10%	16%	5%	4%		11%	18%			2%			<1%			3%		2%	<1%			<1%	5%	4%			
	Oikopleura spp.	<1%		3%	2%	<1%				75%		<1%				7%			3%					6%			2%	<1%	
	Centropages spp.	10%		5%	1%						77%												5%	2%					
	Echinodermata (larvae)	2%				18%		2%	2%	4%		12%				48%				2%			2%	4%		2%	2%		
	Gastropoda (larvae/Limacina)		2%					2%					66%		4%	13%				13%									
	Harpacticoida- epibenthic	36%	4%	9%	4%	2%			2%					32%							11%								
	Hydrozoa (medusa)		2%				4%	4%				2%			32%		4%						2%		11%		38%		
	Bivalvia (larvae)						2%	2%						7%		5%	73%				2%					9%			
	Fritillaria spp.	3%				6%				29%							62%												
	Microcalanus spp.	6%	6%	13%	10%			13%	26%									16%		3%		6%							
	Chaetognatha									29%										64%	4%			4%					
	Polychaeta (larvae)		5%		5%			5%						5%	5%						45%			5%	25%				
	Calanus spp.				7%						7%										71%			14%					
Eurytemora spp.	40%		10%	20%						20%											10%								
Tortanus spp.	50%																					50%							
Decapoda-non brachyura (larvae)																			100%										
		Acartia spp.	Evadne spp.	Temora spp.	Pseudocalanus spp.	Oithona spp.	Bryozoa (larvae)	Podon/Pleopsis spp.	Calanoida (ci-ciii)	Oikopleura spp.	Centropages spp.	Echinodermata (larvae)	Gastropoda (larvae/Limacina)	Harpacticoida- epibenthic	Hydrozoa (medusa)	Bivalvia (larvae)	Fritillaria spp.	Microcalanus spp.	Chaetognatha	Polychaeta (larvae)	Calanus spp.	Eurytemora spp.	Tortanus spp.	Decapoda-non brachyura (larvae)	Cirripedia (larvae)	Copepoda (nauplii)	Obelia spp. (medusa)	Euphausiacea (larvae)	Euphausiacea (medusa)

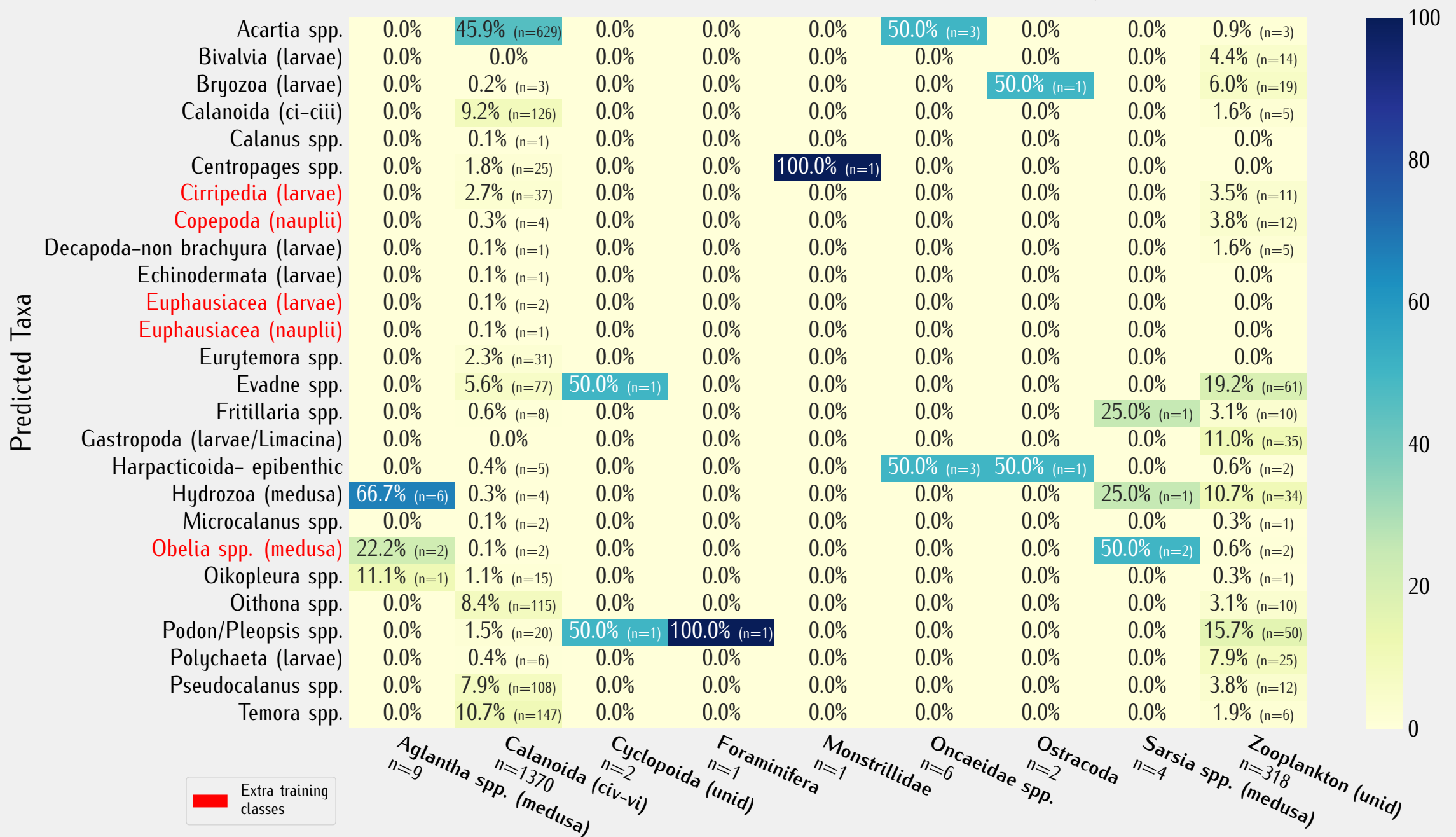
Acartia spp.
Evadne spp.
Temora spp.
Pseudocalanus spp.
Oithona spp.
Bryozoa (larvae)
Podon/Pleopsis spp.
Calanoida (ci-ciii)
Oikopleura spp.
Centropages spp.
Echinodermata (larvae)
Gastropoda (larvae/Limacina)
Harpacticoida (larvae/Limacina)
Hydrozoa (medusa)
Bivalvia (larvae)
Fritillaria spp.
Microcalanus spp.
Chaetognatha
Polychaeta (larvae)
Calanus spp.
Eurytemora spp.
Tortanus spp.
Decapoda-non brachyura (larvae)
Cirripedia (larvae)
Copepoda (larvae)
Obelia spp. (medusa)
Euphausiacea (larvae)
Euphausiacea (nauplii)

Extra
training
classes

	precision	recall	f1-score
Acartia spp. (n=2490–train=20000)	0.74	0.79	0.77
Evadne spp. (n=1931–train=11064)	0.92	0.88	0.90
Temora spp. (n=1416–train=7347)	0.68	0.57	0.62
Pseudocalanus spp. (n=1044–train=4845)	0.68	0.48	0.56
Oithona spp. (n=345–train=5881)	0.77	0.77	0.77
Bryozoa (larvae) (n=248–train=1142)	0.92	0.58	0.71
Podon/Pleopsis spp. (n=230–train=7347)	0.39	0.29	0.33
Calanoida (ci-ciii) (n=130–train=5557)	0.11	0.18	0.14
Oikopleura spp. (n=115–train=5305)	0.75	0.75	0.75
Centropages spp. (n=88–train=3620)	0.25	0.77	0.38
Echinodermata (larvae) (n=50–train=3043)	0.55	0.12	0.20
Gastropoda (larvae/Limacina) (n=47–train=3272)	0.45	0.66	0.53
Harpacticoida- epibenthic (n=47–train=555)	0.65	0.32	0.43
Hydrozoa (medusa) (n=47–train=4052)	0.13	0.32	0.19
Bivalvia (larvae) (n=44–train=3764)	0.80	0.73	0.76
Fritillaria spp. (n=34–train=6992)	0.24	0.62	0.34
Microcalanus spp. (n=31–train=80)	0.42	0.16	0.23
Chaetognatha (n=28–train=89)	0.86	0.64	0.73
Polychaeta (larvae) (n=20–train=1577)	0.18	0.45	0.26
Calanus spp. (n=14–train=359)	0.71	0.71	0.71
Eurytemora spp. (n=10–train=1818)	0.01	0.10	0.02
Tortanus spp. (n=2–train=203)	0.17	0.50	0.25
Decapoda-non brachyura (larvae) (n=1–train=423)	0.00	0.00	0.00
Cirripedia (larvae) (n=0–train=7685)	–	–	–
Copepoda (nauplii) (n=0–train=11555)	–	–	–
Obelia spp. (medusa) (n=0–train=1003)	–	–	–
Euphausiacea (larvae) (n=0–train=87)	–	–	–
Euphausiacea (nauplii) (n=0–train=145)	–	–	–
macro avg (corr)	0.49	0.49	0.46
weighted avg	0.74	0.69	0.70
	precision	recall	f1-score



Predictions of discarded taxa from training



Actual discarded Taxa

Relative Abundance of Top Taxonomic Instances per Sample

