

Use of SCN features: Yes  
Max learning objects: 5000 objects/class  
Strategy N° 12

Gulf Selected Samples prediction using all regions training set,  
Learning with selected samples classes with no low global training instances, with extra regional training categories,  
With Calanoida, Cyclopoida and Zooplankton classes in learning set

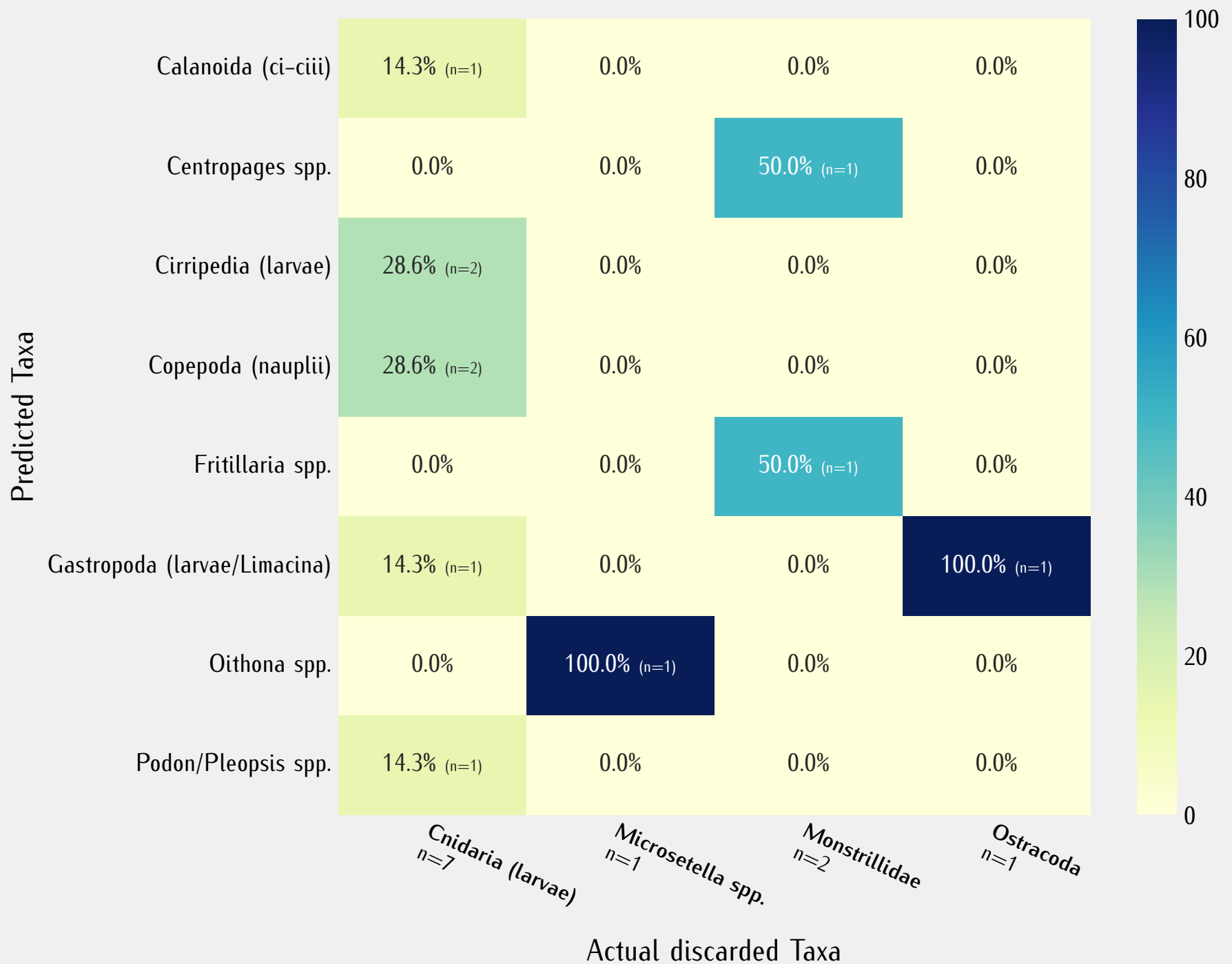
### Confusion Matrix – In percent of Actual Value

		Predicted Values																														Extra training classes				
		Acartia spp.	Bivalvia (larvae)	Calanoida (unid)	Copepoda (nauplii)	Podon/Pleopsis spp.	Oithona spp.	Zooplankton (unid)	Calanoida (ci-ciui)	Pseudodiaptomus spp.	Hydrozoa (medusa)	Gastropoda (larvae/Limacina)	Temora spp.	Bryozoa (larvae)	Polychaeta (larvae)	Ascidacea (larvae)	Harpacticoida- epibenthic	Centropages spp.	Echinodermata (larvae)	Cyclopoida (unid)	Obelia spp. (medusa)	Evadne spp.	Cirripedia (larvae)	Chaetognatha	Pseudocalanus spp.	Decapoda-non brachyura (larvae)	Fritillaria spp.	Oikopleura spp.	Osteichthyes (larvae)	Paracalanus spp.	Eurytemora spp.	Decapoda-brachyura (zoeae)	Calanus spp.	Labidocera spp.	Tortanus spp.	
Actual Values	Acartia spp.	33%		11%	<1%	<1%	29%	<1%	5%	3%	<1%		1%	<1%	<1%	<1%	2%	<1%	<1%	<1%	2%	<1%		<1%	<1%	<1%	<1%		6%	5%	<1%			<1%		
	Bivalvia (larvae)		92%	<1%	<1%	<1%	<1%	2%	<1%	<1%	<1%	3%		<1%	<1%	<1%		<1%	<1%		<1%	<1%				<1%	<1%									
	Calanoida (unid)	1%	<1%	27%	4%	1%	14%	3%	16%	13%	<1%	<1%	<1%	1%	<1%	<1%	1%	<1%	4%	<1%	<1%	5%	4%		<1%		<1%	<1%		<1%	<1%					
	Copepoda (nauplii)		1%	<1%	91%	<1%	<1%	3%	<1%	<1%		<1%		<1%	<1%		<1%		1%	<1%			1%				<1%	<1%								
	Podon/Pleopsis spp.		3%	<1%	14%	59%	<1%	10%	<1%	<1%	<1%	9%	<1%	2%	<1%					<1%	<1%	1%				<1%		<1%		<1%		<1%	<1%	<1%		
	Oithona spp.	<1%		5%	<1%	<1%	79%	<1%	2%	5%				<1%			2%		2%	<1%		<1%	1%				<1%	<1%		<1%						
	Zooplankton (unid)		21%	1%	19%	9%	<1%	30%	<1%	<1%	<1%	8%	<1%	4%	<1%	<1%	<1%		<1%	<1%	<1%	<1%	2%				<1%	<1%								
	Calanoida (ci-ciui)			27%	3%	2%	11%	4%	20%	10%		<1%		<1%	<1%		2%		3%	<1%		8%	6%				<1%	<1%		<1%						
	Pseudodiaptomus spp.	<1%		5%	1%	<1%	19%	<1%	3%	57%		<1%		<1%	<1%		<1%	<1%	1%	<1%		2%	3%		<1%					2%	1%					
	Hydrozoa (medusa)	<1%	2%	<1%		5%	<1%	2%	<1%	<1%	70%	6%	<1%	<1%	<1%				<1%		1%	5%	<1%		<1%		1%			1%						
	Gastropoda (larvae/Limacina)		13%	<1%	7%	8%	<1%	5%		<1%	1%	64%		<1%	<1%							<1%	<1%													
	Temora spp.	1%		6%	2%	<1%	4%	2%	5%	18%			23%	<1%	2%			4%	<1%			8%	4%		11%					6%	3%					
	Bryozoa (larvae)		<1%	<1%	24%	16%	<1%	8%					6%	<1%	42%	2%							<1%					<1%								
	Polychaeta (larvae)	<1%		1%	21%	4%	<1%	3%	<1%	3%		1%	<1%	<1%	39%					4%			5%	13%			<1%	<1%	<1%	<1%			<1%			
	Ascidacea (larvae)	<1%				4%				<1%					2%	91%											<1%	<1%	1%							
	Harpacticoida- epibenthic	<1%		8%	5%		36%		6%	10%				<1%			14%		3%	6%		<1%	<1%		2%		<1%			3%	2%					
	Centropages spp.	23%					41%		5%				9%					14%													7%	2%				
	Echinodermata (larvae)				8%	11%				3%									30%			16%	32%													
	Cyclopoida (unid)			9%	9%	4%	4%			17%				9%			9%		4%	26%		4%	4%													
	Obelia spp. (medusa)			5%		5%	14%		5%		10%										33%	14%	10%							5%						
Evadne spp.							6%		6%				6%									75%	6%													
Cirripedia (larvae)			6%	44%							6%			6%				6%				31%														
Chaetognatha						8%									8%												15%	69%								
Pseudocalanus spp.	29%								14%			29%												14%						14%						
Decapoda-non brachyura (larvae)																									100%											
Fritillaria spp.																											67%	33%								
Oikopleura spp.																											100%									
Osteichthyes (larvae)																												100%								
Paracalanus spp.																														100%						
Eurytemora spp.																								100%												
Decapoda-brachyura (zoeae)																																			100%	

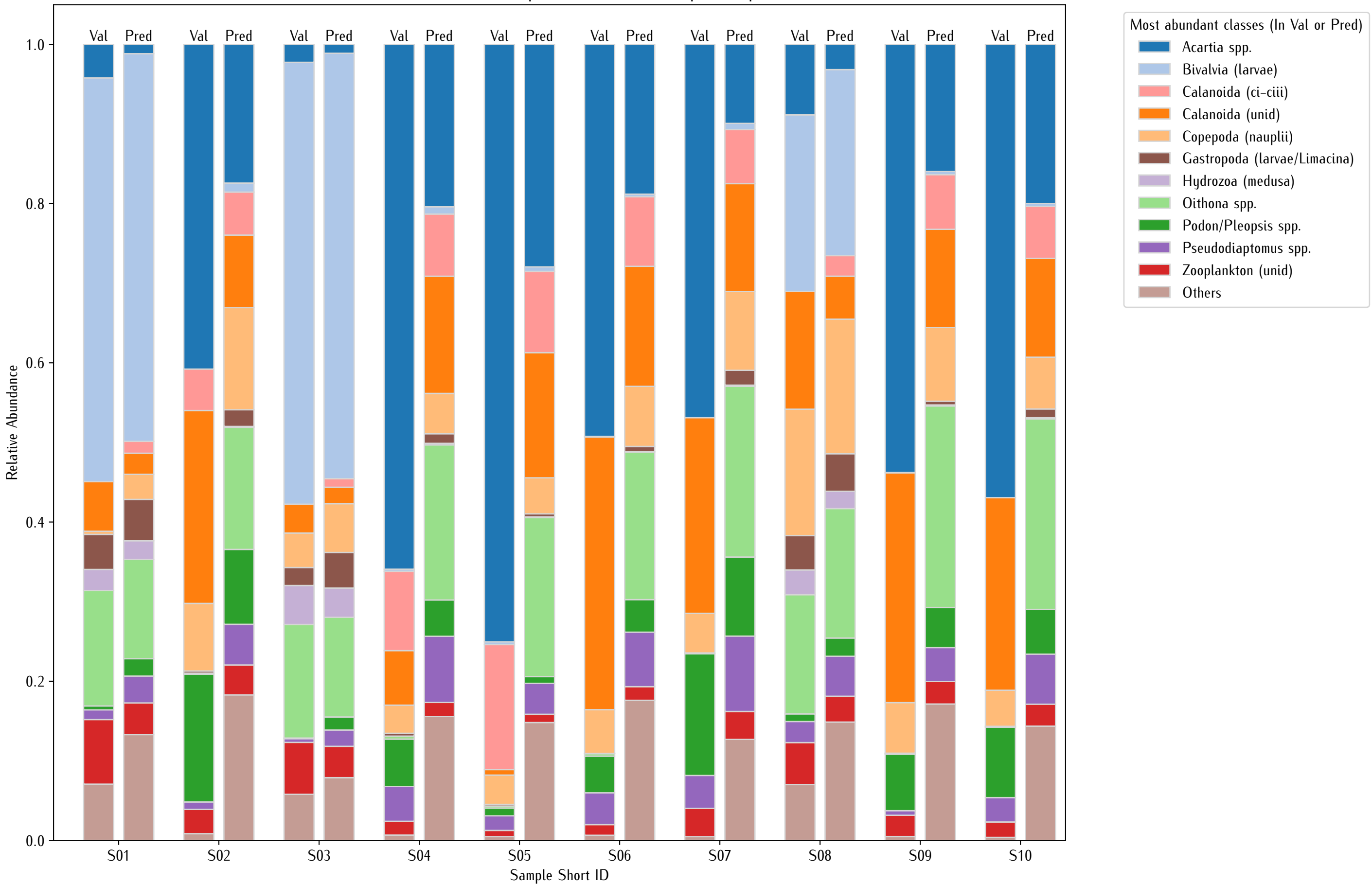
Classification Report Matrix  
max 5000 learning objects per class

	precision	recall	f1-score
Acartia spp. (n=18062-train=5000)	0.98	0.33	0.49
Bivalvia (larvae) (n=7955-train=3764)	0.93	0.92	0.92
Calanoida (unid) (n=7711-train=5000)	0.44	0.27	0.33
Copepoda (nauplii) (n=2753-train=5000)	0.64	0.91	0.75
Podon/Pleopsis spp. (n=2715-train=5000)	0.76	0.59	0.66
Oithona spp. (n=2572-train=5000)	0.23	0.79	0.36
Zooplankton (unid) (n=1822-train=5000)	0.38	0.30	0.34
Calanoida (ci-ciii) (n=1348-train=5000)	0.11	0.20	0.14
Pseudodiaptomus spp. (n=1059-train=2113)	0.24	0.57	0.34
Hydrozoa (medusa) (n=671-train=4052)	0.86	0.70	0.77
Gastropoda (larvae/Limacina) (n=629-train=3272)	0.35	0.64	0.45
Temora spp. (n=308-train=5000)	0.25	0.23	0.24
Bryozoa (larvae) (n=247-train=1142)	0.28	0.42	0.33
Polychaeta (larvae) (n=237-train=1577)	0.46	0.39	0.42
Ascidacea (larvae) (n=194-train=861)	0.95	0.91	0.93
Harpacticoida- epibenthic (n=108-train=555)	0.05	0.14	0.07
Centropages spp. (n=44-train=3620)	0.02	0.14	0.03
Echinodermata (larvae) (n=37-train=3043)	0.02	0.30	0.03
Cyclopoida (unid) (n=23-train=143)	0.05	0.26	0.08
Obelia spp. (medusa) (n=21-train=1003)	0.18	0.33	0.24
Evadne spp. (n=16-train=5000)	0.01	0.75	0.02
Cirripedia (larvae) (n=16-train=5000)	0.01	0.31	0.01
Chaetognatha (n=13-train=89)	0.00	0.00	0.00
Pseudocalanus spp. (n=7-train=4845)	0.01	0.14	0.01
Decapoda-non brachyura (larvae) (n=4-train=423)	0.44	1.00	0.62
Fritillaria spp. (n=3-train=5000)	0.01	0.67	0.03
Oikopleura spp. (n=2-train=5000)	0.00	0.00	0.00
Osteichthyes (larvae) (n=1-train=45)	0.00	0.00	0.00
Paracalanus spp. (n=1-train=1619)	0.00	0.00	0.00
Eurytemora spp. (n=1-train=1818)	0.00	0.00	0.00
Decapoda-brachyura (zoeae) (n=1-train=628)	0.00	0.00	0.00
Calanus spp. (n=0-train=359)	-	-	-
Labidocera spp. (n=0-train=493)	-	-	-
Tortanus spp. (n=0-train=203)	-	-	-
macro avg (corr)	0.28	0.39	0.28
weighted avg	0.73	0.50	0.54
	precision	recall	f1-score

# Predictions of discarded taxa from training



Relative Abundance of Top Taxonomic Instances per Sample



Relative Abundance of Top Taxonomic Instances per Sample (Redistributed)

