

Use of SCN features: No
Max learning objects: 200 objects/class
Strategy N° 9

Gulf Selected Samples prediction using Gulf training set,
Learning with all classes present in the selected samples, with extra training categories,
With Calanoida, Cyclopoida, NO Zooplankton classes in learning set

Confusion Matrix - In percent of Actual Value

Classification Report Matrix
max 200 learning objects per class

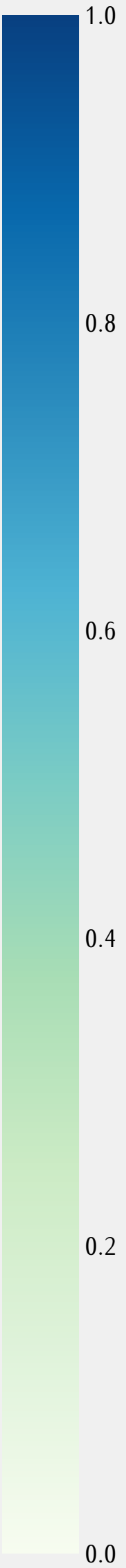
Actual Values

	Acartia spp.	18%	8%	<1%	<1%	29%	4%	5%	<1%	<1%	2%	<1%		<1%	5%	1%	<1%	<1%	<1%	2%	<1%	<1%	<1%	4%	<1%	<1%	<1%	<1%		3%	<1%		14%	<1%		4%				
	Bivalvia (larvae)		91%	<1%	1%	<1%	<1%	<1%	1%	5%		<1%	<1%	<1%		<1%	<1%		<1%	<1%		<1%										<1%								
	Calanoida (unid)	<1%	<1%	6%	3%	<1%	12%	30%	12%	<1%	<1%	<1%	4%	<1%	<1%	8%	<1%	5%	5%	<1%	5%	2%	<1%	<1%	<1%		2%	<1%		<1%		<1%	<1%	<1%	<1%	<1%				
	Copepoda (nauplii)		3%		78%	<1%		<1%	<1%		<1%		6%	3%		<1%		3%	4%		<1%	2%					<1%					<1%								
	Podon/Pleopsis spp.		6%	<1%	14%	46%	<1%	<1%	<1%	2%	13%	<1%	10%	3%		<1%		<1%		<1%	4%		<1%		<1%		<1%				<1%		<1%			<1%				
	Oithona spp.	<1%		2%	<1%	<1%	69%	6%	6%				<1%		<1%	10%		2%	3%		<1%	<1%		<1%		1%	<1%				<1%	<1%			<1%					
	Calanoida (ci-ciii)	<1%		4%	2%	1%	8%	34%	10%	<1%	<1%		5%	<1%		10%		4%	6%		7%	3%		<1%		1%					<1%									
	Pseudodiaptomus spp.	<1%		1%	<1%	<1%	15%	13%	37%		<1%	<1%	<1%		<1%	16%	<1%	4%	6%		2%	<1%		<1%	<1%	<1%				<1%			2%		<1%					
	Hydrozoa (medusa)		2%	1%		3%	1%		<1%	67%	6%	<1%	4%			<1%		<1%	<1%	4%	5%	1%	<1%	<1%	<1%		<1%			<1%			<1%	<1%	<1%					
Gastropoda (larvae/Limacina)		17%		9%	8%		<1%		3%	53%		4%	2%		<1%					<1%	1%		1%	<1%					<1%											
	Temora spp.	<1%		2%	<1%	<1%	2%	7%	14%			19%	4%			4%	6%	4%	4%		7%	2%		<1%	6%	<1%			<1%		6%	<1%	5%	4%	1%					
	Bryozoa (larvae)		1%		19%	13%	<1%	<1%		<1%	6%		55%	2%		<1%			<1%		<1%					<1%				<1%										
	Polychaeta (larvae)	<1%	<1%	<1%	16%	4%	<1%	4%	1%		<1%		2%	47%		2%		4%	<1%	<1%	7%	4%			<1%	2%		<1%		<1%		<1%								
	Ascidacea (larvae)	<1%				2%		<1%						89%	2%								<1%			<1%			5%											
Harpacticoida- epibenthic			2%	2%		10%	10%	2%				<1%	3%			47%		<1%	13%		<1%	<1%		2%	<1%					<1%		<1%	3%							
	Centropages spp.	18%					39%		2%				11%			2%	11%							9%						2%			5%							
	Echinodermata (larvae)					3%	3%	11%					5%	3%				38%			19%	14%			3%										3%					
	Cyclopoida (unid)				9%						4%		9%			17%		4%	52%												4%									
	Obelia spp. (medusa)					5%	24%			10%					5%					19%	29%												5%		5%					
	Evadne spp.											12%					6%				62%	6%							6%			6%								
	Cirripedia (larvae)				31%	6%		6%				6%				19%					31%																			
	Chaetognatha						8%						8%						8%			46%			8%		8%	15%												
	Cnidaria (larvae)				29%			14%													29%		29%																	
	Pseudocalanus spp.	29%										29%												29%						14%										
Decapoda-non brachyura (larvae)																									50%				25%						25%					
	Fritillaria spp.												33%														67%													
	Oikopleura spp.																									100%														
	Monstrillidae																												100%											
	Osteichthyes (larvae)																																		100%					
	Ostracoda										100%																													
	Paracalanus spp.																													100%										
Decapoda-brachyura (zoeae)																																				100%				
	Microsetella spp.										100%																													
	Eurytemora spp.																																							
		Acartia spp.	Bivalvia (larvae)	Calanoida (larvae)	Copepoda (unid)	Podon/Pleopsis spp.	Oithona spp.	Calanoida (ci-ciii)	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. (medusa)	Cirripedia (larvae)	Chaetognatha	Cnidaria (larvae)	Pseudocalanus spp.	Decapoda-non brachyura (larvae)	Fritillaria spp.	Oikopleura spp.	Monstrillidae	Osteichthyes (larvae)	Ostracoda	Paracalanus spp.	Decapoda-brachyura (zoeae)	Microsetella spp.	Eurytemora spp.	Calanus spp.	Labidocera spp.	Tortanus spp.		
		Predicted Values																																						
																																								Extra training classes

Predicted Values

Extra
training
classes

	precision	recall	f1-score
Acartia spp. (n=18062-train=200)	0.97	0.18	0.30
Bivalvia (larvae) (n=7955-train=200)	0.95	0.91	0.93
Calanoida (unid) (n=7711-train=200)	0.23	0.06	0.09
Copepoda (nauplii) (n=2753-train=200)	0.70	0.78	0.74
Podon/Pleopsis spp. (n=2715-train=200)	0.83	0.46	0.60
Oithona spp. (n=2572-train=200)	0.22	0.69	0.33
Calanoida (ci-cii) (n=1348-train=200)	0.12	0.34	0.17
Pseudodiaptomus spp. (n=1059-train=200)	0.16	0.37	0.22
Hydrozoa (medusa) (n=671-train=200)	0.69	0.67	0.68
Gastropoda (larvae/Limacina) (n=629-train=200)	0.28	0.53	0.36
Temora spp. (n=308-train=200)	0.15	0.19	0.16
Bryozoa (larvae) (n=247-train=200)	0.12	0.55	0.20
Polychaeta (larvae) (n=237-train=200)	0.35	0.47	0.40
Ascidacea (larvae) (n=194-train=200)	0.62	0.89	0.73
Harpacticoida- epibenthic (n=108-train=200)	0.02	0.47	0.05
Centropages spp. (n=44-train=200)	0.02	0.11	0.03
Echinodermata (larvae) (n=37-train=118)	0.02	0.38	0.03
Cyclopoida (unid) (n=23-train=64)	0.01	0.52	0.03
Obelia spp. (medusa) (n=21-train=200)	0.03	0.19	0.05
Evadne spp. (n=16-train=200)	0.01	0.62	0.02
Cirripedia (larvae) (n=16-train=200)	0.01	0.31	0.02
Chaetognatha (n=13-train=18)	0.32	0.46	0.37
Cnidaria (larvae) (n=7-train=20)	0.04	0.29	0.07
Pseudocalanus spp. (n=7-train=200)	0.00	0.29	0.01
Decapoda-non brachyura (larvae) (n=4-train=197)	0.06	0.50	0.11
Fritillaria spp. (n=3-train=200)	0.00	0.67	0.01
Oikopleura spp. (n=2-train=37)	0.00	0.00	0.00
Monstrillidae (n=2-train=27)	0.11	1.00	0.20
Osteichthyes (larvae) (n=1-train=43)	0.00	0.00	0.00
Ostracoda (n=1-train=1)	0.00	0.00	0.00
Paracalanus spp. (n=1-train=82)	0.00	1.00	0.00
Decapoda-brachyura (zoeae) (n=1-train=200)	0.00	0.00	0.00
Microsetella spp. (n=1-train=4)	0.00	0.00	0.00
Eurytemora spp. (n=1-train=200)	0.00	0.00	0.00
Calanus spp. (n=0-train=109)	-	-	-
Labidocera spp. (n=0-train=200)	-	-	-
Tortanus spp. (n=0-train=111)	-	-	-
macro avg (corr)	0.21	0.41	0.20
weighted avg	0.70	0.39	0.42
	precision	recall	f1-score



Predictions of discarded taxa from training

Predicted Taxa

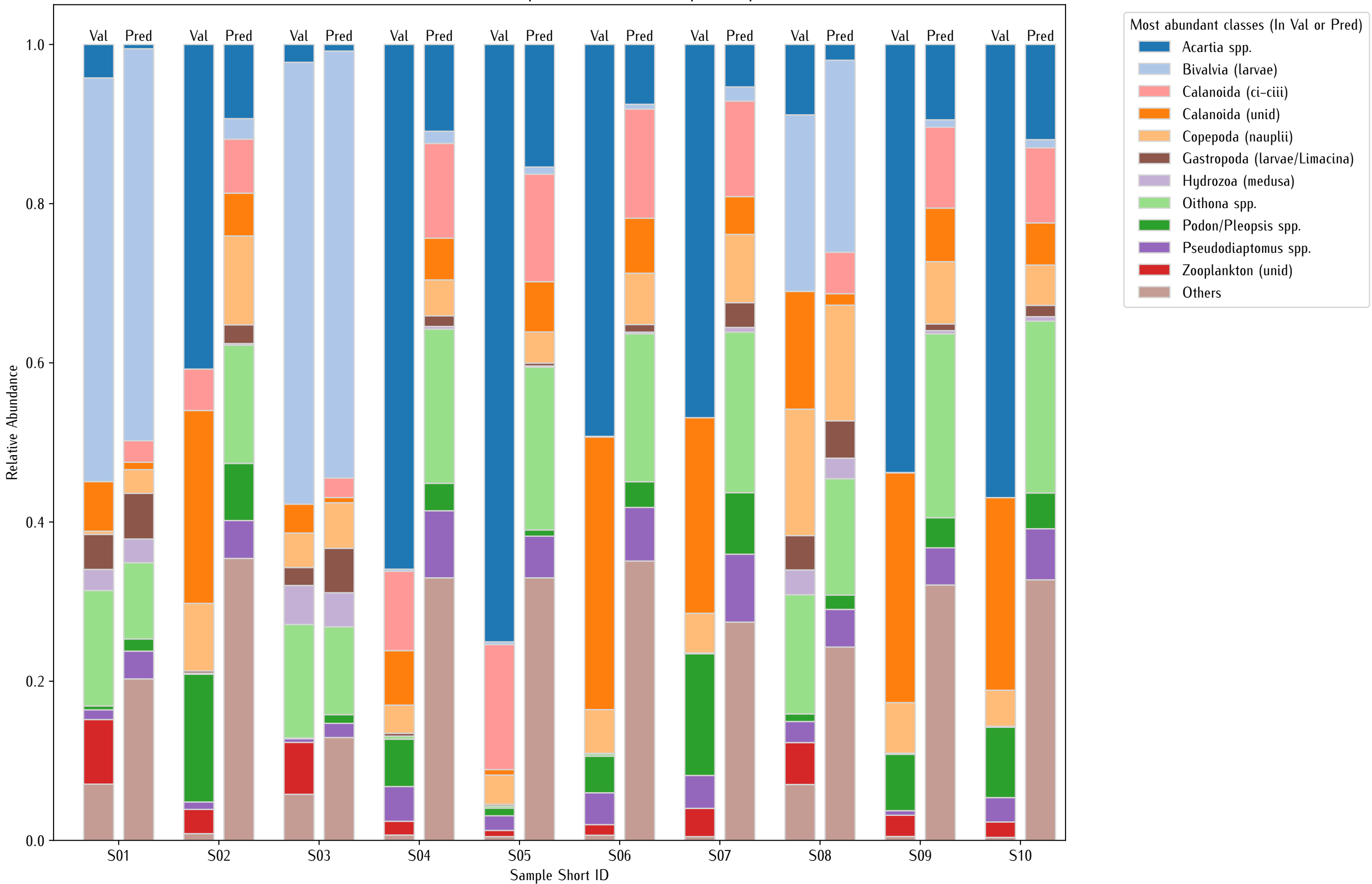
Ascidiacea (larvae)	0.2% (n=4)
Bivalvia (larvae)	34.2% (n=623)
Bryozoa (larvae)	17.7% (n=323)
Calanoida (ci-ciii)	2.0% (n=37)
Calanoida (unid)	0.1% (n=1)
Cirripedia (larvae)	1.5% (n=27)
Cnidaria (larvae)	0.3% (n=5)
Copepoda (nauplii)	17.6% (n=321)
Cyclopoida (unid)	0.9% (n=16)
Echinodermata (larvae)	1.3% (n=23)
Evadne spp.	0.8% (n=15)
Fritillaria spp.	0.5% (n=10)
Gastropoda (larvae/Limacina)	11.0% (n=201)
Harpacticoida- epibenthic	0.4% (n=8)
Hydrozoa (medusa)	3.2% (n=58)
Oithona spp.	0.3% (n=6)
Ostracoda	0.1% (n=1)
Podon/Pleopsis spp.	5.8% (n=105)
Polychaeta (larvae)	1.9% (n=34)
Pseudocalanus spp.	0.1% (n=1)
Pseudodiaptomus spp.	0.1% (n=2)
Temora spp.	0.1% (n=1)

Zooplankton (unid)
n=1822

Actual discarded Taxa



Relative Abundance of Top Taxonomic Instances per Sample



Relative Abundance of Top Taxonomic Instances per Sample (Redistributed)

