Use of SCN features: Yes

Max learning objects: 20000 objects/class Strategy N° 9

Actual Values

## 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 normant of Actual Value

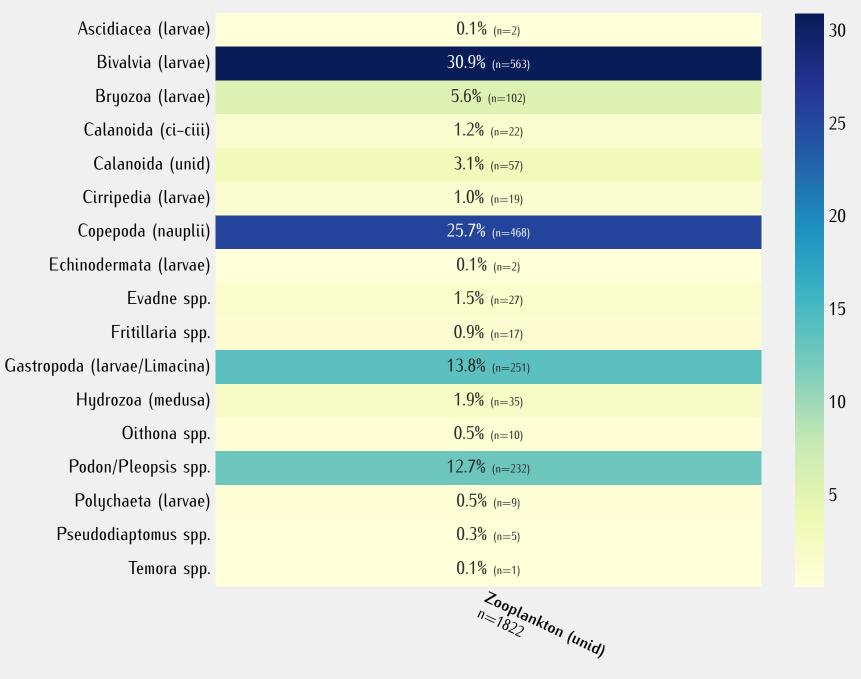
Classification Report Matrix max 20000 learning objects per class

precision recall

f1-score

	Confusion Matrix – In percent of Actual Value														max 20000 learning objects per class									
																precision	recall	f1-score						
Acartia spp.	49%	23%	<1% <	1% 19%	2% 2%	<1% <1% <1	%	<1% <1% 1%	<1%	<1% 1% <	<1%		<1% <1	1%			<1%	<1% <1%		Acartia spp. (n=18062-train=20000)		0.49	0.65	
Bivalvia (larvae)		93% <19	1% <	1% <1%	<1% <1%	<1% 4%	<1%	<1%	<1%	<1% <	<1%		<1	1%						Bivalvia (larvae) (n=7955-train=3574)	0.07	0.93	0.95	
Calanoida (unid)	2%	<1% 49%	5% 1	% 10%	16% 7%	<1% <1% <1	% <1% <1% <	<1%   <1%   <1%	6     <1%	<1% 5% <	<1%		29	%				<1%		Calanoida (unid)	0.41	0.49	0.45	
Copepoda (nauplii)		1% <19	95% 1	% <1%	<1% <1%	<1%	<1% <1%		<1%	<1% <	<1%		<1	1%						(n=7711-train=20000) <b>Copepoda (nauplii)</b> (n=2753-train=10297)	0.69	0.95	0.80	
Podon/Pleopsis spp. <	<1%	3% <19	14% 65	5% <1%	<1%	1% 10% <1	% 2% <1%			2% <	<1%		<1% <1	1%			<1%			(n=2753-train=10297) <b>Podon/Pleopsis spp.</b>				
Oithona spp. <	<1%	11%	<1% <	1% 79%	3% 2%		<1%	<1%	<1% <1%	<1% <	<1%		19	% <1%						(n=2715-train=3541) Oithona spp.	0.04	0.65	0.73	
Calanoida (ci-ciii) <	<1%	49%	4% 2	2% 8%	20% 4%	<1% <1%	<1% <1%	<1%	<1%	8% <	<1%		29	%						(n=2572-train=4428)	0.30	0.79	0.43	1.0
Pseudodiaptomus spp.	2%	19%	5 2%	19%	6% 46%	<1% <1%	% <1%	<1% <1%	<1%	3% <	<1%							<1%		Calanoida (ci-ciii) (n=1348-train=1531)	0.13	0.20	0.16	1.0
Hydrozoa (medusa)	1%	2% 4%	5	<1%		72% 6% <1	% <1%	<19	б	2% 6% <	<1%		<1	1%						Pseudodiaptomus spp. (n=1059-train=2113)	0.34	0.46	0.39	
Gastropoda (larvae/Limacina) <	<1%	13% <19	8% 10	0% <1%	<1%	1% 64% <1	% <1%			<1% <	<1%									Hydrozoa (medusa) (n=671-train=3730)	0.83	0.72	0.77	
Temora spp.	6%	19%	5 2% <	1% 5%	4% 12%	<1% 31%	% <1%	8%		9% <	<1%							2%		Gastropoda (larvae/Limacina) (n=629-train=2871)	0.36	0.64	0.47	
Bryozoa (larvae)	<	<1% 2%	26% 19	9%	<1%	<1% 9% <1	% 40% <1%			<1%			<1	1%						Temora spp.	0.41	0.31	0.35	
Polychaeta (larvae) <	<1%	4%	23% 5	3% <1%	3% 3%	1%	41%			<1% 11% 3	3%		<1% 39	%	<19	%	<1%			(n=308-train=2199) <b>Bryozoa (larvae)</b>	0.38	0.40	0.39	0.0
Ascidiacea (larvae) <	<1%	1%		3%	<1%	ó	g	93%					19	%	<19	%				(n=247-train=973) Polychaeta (larvae)				0.8
Harpacticoida- epibenthic	2%	25%	5 5%	36%	6% 4%	<1	%	11%	2%				59	%				4%		(n=237-train=464)	0.04	0.41	0.55	
Centropages spp.	43%	2%		30%	2%	7%	5	11%	5	2%								2%		Ascidiacea (larvae) (n=194-train=805)	0.95	0.93	0.94	
Echinodermata (larvae)		11%	5 14% 8	3%	16% 3%				3%	38%			59	%						Harpacticoida- epibenthic (n=108-train=372)	0.14	0.11	0.12	
Cyclopoida (unid)		13%	5 17%	9%	13%	4%	4%	13%	13%	4%			99	%						Centropages spp. (n=44-train=3461)	0.02	0.11	0.03	
Obelia spp. (medusa)	5%	10%	5 5	3% 14%		10%				33% 24%										Echinodermata (larvae) (n=37-train=118)	0.10	0.03	0.04	0.6
Evadne spp.		6%				6%				81%	6%									Cyclopoida (unid)	0.09	0.13	0.11	0.6
Cirripedia (larvae)		6%	50%			6%				3	38%									(n=23-train=64) <b>Obelia spp. (medusa)</b>	0.25	0.33	0.29	
Chaetognatha	8%			8%			1	15%			8%	6	31	% 8%	23%	б				(n=21-train=952) <b>Evadne spp.</b>	0.01	0.81	0.03	
Cnidaria (larvae)		14%	5 29% 14	4%	14%					1	14%	14%								(n=16-train=7238) Cirripedia (larvae)				
Pseudocalanus spp.	43%				14%	439	%													(n=16-train=716) Chaetognatha		0.38	0.08	
Decapoda-non brachyura (larvae)													50%					50	)%	(n=13-train=18)	1.00	0.08	0.14	0.4
Fritillaria spp.													100	0%						Cnidaria (larvae) (n=7-train=20)		0.14	0.25	0.4
Oikopleura spp.													100	0%						Pseudocalanus spp. (n=7-train=228)	0.00	0.00	0.00	
Monstrillidae								50%	5					5	50%					Decapoda-non brachyura (larvae) (n=4-train=197)	0.20	0.50	0.29	
Osteichthyes (larvae)															1009	%				Fritillaria spp. (n=3-train=2701)		1.00	0.02	
Ostracoda						100%														Oikopleura spp.	0.00	0.00	0.00	
Paracalanus spp.																		100%		(n=2-train=37)  Monstrillidae		0.50	0.67	0.2
Decapoda-brachyura (zoeae)																		10	0%	(n=2-train=27) Osteichthyes (larvae)	0.14	1.00	0.25	0.2
Microsetella spp.		1009	%																	(n=1-train=43) Ostracoda				
Eurytemora spp.						100	%													(n=1-train=1) Paracalanus spp.	0.00	0.00	0.00	
	Aco.	Bir Ca	( 6)	On Oiza	Cal As	Hy Cas le	Bru Poli	Sc. 1/2 Co	S. Ch. Yo	Obs. Charles	Cir. Ci	So Chick	Se. Oe 4	rizi Oik	100 Os	S OS A	Oc. 1/	ic Cur Col	ob. Por	(n=1-train=82)	0.00	0.00	0.00	
	17/6	Bivalvia (16	Anoida (unid)	On/ple	Calanoida ( Osis Sp.	Ci ciii) Spp.	Mora Spp. Polycho	Ascidiacea (lange)	tropage unoder	Obelia Sp. (ne Sta (larvae)	Spredia	haelognatha (lange)	Seldocalonus S	Maria Pla	Monstrillia	Teichthyes (lange	Decapoda, Spp.	icrosetella Sp. Sp.	Spp. Spp.	<b>Decapoda-brachyura (zoeae)</b> (n=1-train=277)	0.00	0.00	0.00	
		χ, ¢	rae (unia	(naupli)		ci plonus medus	Mary aras	of land land		ta (unia) (me	D. Pedi	(larvae)	Parvael 1118	non pp.	100 TO	de ses lan	5/1/2	Drachy Spp. Spp.	EN 18 SDN SDN	Microsetella spp. (n=1-train=4)	0.00	0.00	0.00	0.0
				V)	1/2	Sp. S	Mora Spp. (larvae)	·9/ 9	Propages Sp. Pibenthic	Obelia Spp. (Me (lanae)	50)		Selidocalanus S	v. Ochyl	W <sub>o</sub>	de	2)	icrosetella Spp. Spp. brachyura (Aoede)		Eurytemora spp. (n=1-train=1730)	0.00	0.00	0.00	3.0
							Cinal		· C						land	,		cae		Calanus spp. (n=0-train=109)	_	_	-	
															·%				Extra training	Labidocera spp.	_	_	_	
									Predic	cted Values	6								classes	(n=0-train=493) <b>Tortanus spp.</b>	_	_	_	
																				(n=0-train=111)	0.37	0.40	0.30	
																				macro avg (corr)				
																				weighted avg	0.76	0.61	0.64	

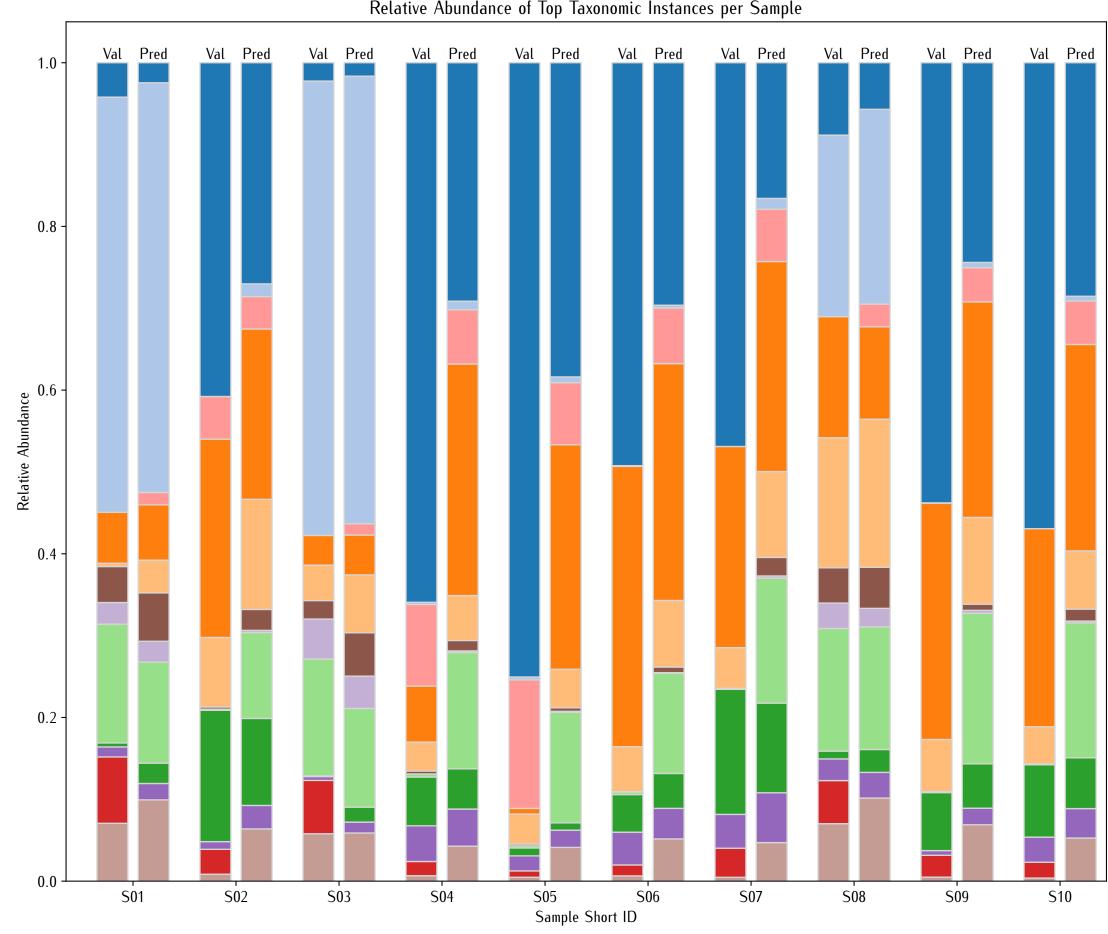
## Predictions of discarded taxa from training

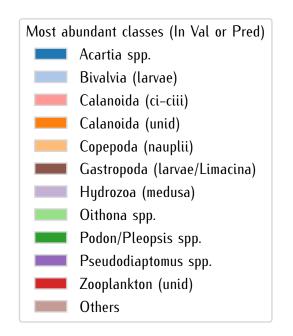


**Predicted Taxa** 

Actual discarded Taxa

Relative Abundance of Top Taxonomic Instances per Sample





## Relative Abundance of Top Taxonomic Instances per Sample (Redistributed)

