Use of SCN features: No

Actual Values

Max learning objects: 20000 objects/class Strategy N° 1

## PA Selected Samples prediction using PA training set, Learning with all classes present in the selected samples, no extra training categories, No Calanoida (civ-vi), Cyclopoida, Zooplankton classes in learning set

Confusion Matrix - In percent of Actual Value

										C	ontusi	on IVI	atrıx	– In p	oercer	11 01 /	Actua	ı valı	ue								
Cirripedia (larvae)	78%	1%	<1%	12%	<1%	1%	<1%	<1%	<1%	<1%	<1%	<1%	<1%		1%	1%	1%			<1%						<1%	<1%
Acartia spp.	<1%	79%	<1%	<1%	<1%	<1%	6%	1%	8%			<1%		<1%	<1%	<1%	<1%			<1%	<1%		<1%	<1%			
Oikopleura spp.	2%	2%	82%	3%	2%	2%	<1%	<1%	1%		<1%	<1%	<1%	<1%	2%	3%	<1%	<1%	<1%		<1%	<1%				<1%	<1%
Podon/Pleopsis spp.	10%	1%	<1%	54%		10%	1%	3%	10%			2%	3%			<1%	1%							<1%		2%	
Fritillaria spp.	<1%	5%	45%	<1%	41%	2%	<1%		<1%			<1%	<1%		4%							<1%	<1%				
Evadne spp.	7%	1%	<1%	10%		69%	1%	<1%	4%		<1%	<1%	4%		<1%	<1%		<1%								<1%	
Corycaeidae	<1%	13%	2%	1%		<1%	71%	<1%	5%			<1%		<1%		<1%	<1%		<1%		<1%			<1%			
Calanoida (ci-ciii)	15%	16%	<1%	15%		5%	10%	13%	8%			3%			9%											3%	<1%
Paracalanus spp.	<1%	8%	<1%	2%		2%	<1%		79%			<1%					<1%							4%	1%		
Gastropoda (larvae/Limacina)	6%	4%		36%		6%		2%	3%	31%	8%	2%	<1%		<1%											2%	
Bivalvia (larvae)				11%		1%	1%			5%	80%															1%	
Polychaeta (larvae)	23%	5%		17%		5%	3%	2%	3%			26%	2%			3%	3%	2%	5%							2%	2%
Hydrozoa (medusa)			2%	2%		4%			5%			2%	80%			4%	2%										
Centropages spp.		24%	4%				2%					2%		18%			16%		16%		14%			4%			
Echinodermata (larvae)	2%			14%	5%	48%			2%				12%			10%		5%								2%	
Calycophorae (nectophore)												3%	8%			78%	8%		3%								
Decapoda-brachyura (zoeae)	3%	6%							6%				3%			6%	59%		12%					3%			
Ctenophora (larvae)	3%			13%		13%						10%	52%			3%		3%								3%	
ecapoda–non brachyura (larvae)		4%		4%		4%							4%				8%	4%	73%								
Ostracoda				32%		36%					20%	4%								8%							
Tortanus spp.	4%	8%												12%		21%	25%				29%						
Ascidiacea (larvae)			52%																			48%					
Oithona spp.		53%	12%		12%		6%							6%					6%				6%				
Pseudocalanus spp.									14%					14%			14%		14%					43%			
Calanus spp.													17%				33%		33%						17%		
Copepoda (nauplii)				50%				25%																		25%	
Euphysa spp. (medusa)													33%			67%											
Bryozoa (larvae)	100%																										
	Ciripe	Acarre	Oitop Spp.	Podolog Spp.	Pleopsis	\$410 SPD.	Coryce Spp.	Calan Peidae	Parace Circle	Castro Vanus Sph	Bixalla Poods Paris	Polychia (large)	Hydrox Can	Centrol (medicine)	Sa)	Calycol dermata (	Decape Johorae (ne Janae)	Ctenopor	Decape Sylva (Soco	Ostracion b.	Tortante Stachyura	Ascidle Is SPD.	Oithon	PS PP.	Calantis S	Copepole Spp.	Cuphysa Spp. (Mauplii)

Predicted Values

## Classification Report Matrix max 20000 learning objects per class

Ma	ıx ∠uuuu te	earning obje	ects per cla
	precision	recall	f1-score
Cirripedia (larvae) (n=3231-train=6358)	0.93	0.78	0.85
Acartia spp. (n=2290-train=4410)	0.89	0.79	0.83
<b>Oikopleura spp.</b> (n=1773-train=4507)	0.84	0.82	0.83
Podon/Pleopsis spp. (n=607-train=3605)	0.35	0.54	0.43
Fritillaria spp. (n=475-train=844)	0.80	0.41	0.54
Evadne spp. (n=358-train=981)	0.53	0.69	0.60
<b>Corycaeidae</b> (n=335-train=1760)	0.57	0.71	0.63
Calanoida (ci-ciii) (n=150-train=313)	0.26	0.13	0.18
Paracalanus spp. (n=141-train=1525)	0.24	0.79	0.37
Gastropoda (larvae/Limacina) (n=126-train=291)	0.66	0.31	0.42
<b>Bivalvia (larvae)</b> (n=96-train=119)	0.75	0.80	0.78
Polychaeta (larvae) (n=65-train=661)	0.25	0.26	0.25
Hydrozoa (medusa) (n=55-train=301)	0.34	0.80	0.48
Centropages spp. (n=50-train=119)	0.25	0.18	0.21
Echinodermata (larvae) (n=42-train=2649)	0.00	0.00	0.00
Calycophorae (nectophore) (n=37-train=966)	0.20	0.78	0.32
Decapoda-brachyura (zoeae) (n=32-train=343)	0.17	0.59	0.27
Ctenophora (larvae) (n=31-train=29)	0.14	0.03	0.05
ecapoda-non brachyura (larvae) (n=26-train=219)	0.43	0.73	0.54
Ostracoda (n=25-train=18)	0.13	0.08	0.10
Tortanus spp. (n=24-train=88)	0.24	0.29	0.26
Ascidiacea (larvae) (n=23-train=54)	0.69	0.48	0.56
Oithona spp. (n=17-train=44)	0.06	0.06	0.06
Pseudocalanus spp. (n=7-train=65)	0.14	0.43	0.21
Calanus spp. (n=6-train=37)	0.33	0.17	0.22
Copepoda (nauplii) (n=4-train=233)	0.02	0.25	0.03
Euphysa spp. (medusa) (n=3-train=3)	0.00	0.00	0.00
Bryozoa (larvae) (n=1-train=50)	0.00	0.00	0.00
macro avg	0.36	0.43	0.36
weighted avg	0.78	0.72	0.73
	precision	recall	f1-score

## Predictions of discarded taxa from training

Acartia spp.	45.3% (n=273)	33.3% (n=1)	1.2% (n=4)	
Bivalvia (larvae)	0.0%	0.0%	34.3% (n=115)	
Bryozoa (larvae)	0.0%	0.0%	0.6% (n=2)	4
Calanoida (ci-ciii)	1.2% (n=7)	0.0%	0.0%	7
Calanus spp.	0.5% (n=3)	0.0%	0.0%	
Calycophorae (nectophore)	0.8% (n=5)	0.0%	0.0%	
Centropages spp.	0.7% (n=4)	0.0%	0.0%	
Cirripedia (larvae)	3.3% (n=20)	0.0%	3.3% (n=11)	
Copepoda (nauplii)	0.0%	0.0%	1.8% (n=6)	3
Corycaeidae	8.5% (n=51)	33.3% (n=1)	2.4% (n=8)	
Decapoda-brachyura (zoeae)	1.7% (n=10)	0.0%	0.3% (n=1)	
Decapoda-non brachyura (larvae)	0.2% (n=1)	0.0%	0.6% (n=2)	
Echinodermata (larvae)	0.3% (n=2)	0.0%	0.3% (n=1)	
Evadne spp.	7.5% (n=45)	33.3% (n=1)	5.4% (n=18)	2
Fritillaria spp.	1.0% (n=6)	0.0%	0.3% (n=1)	
Gastropoda (larvae/Limacina)	0.0%	0.0%	6.6% (n=22)	
Hydrozoa (medusa)	0.2% (n=1)	0.0%	2.1% (n=7)	
Oikopleura spp.	1.0% (n=6)	0.0%	0.6% (n=2)	
Oithona spp.	0.2% (n=1)	0.0%	0.0%	1
Paracalanus spp.	24.9% (n=150)	0.0%	2.4% (n=8)	·
Podon/Pleopsis spp.	1.5% (n=9)	0.0%	34.6% (n=116)	
Polychaeta (larvae)	0.2% (n=1)	0.0%	3.3% (n=11)	
Pseudocalanus spp.	0.7% (n=4)	0.0%	0.0%	
Tortanus spp.	0.7% (n=4)	0.0%	0.0%	0
	C <sub>alanoida</sub> (c	Cyclopoida (u.	$lpha_{m{oop}_{m{lankton}}}$ (u,	U
	1003 · Va (c	iv-vi)	nid)	nid)

Predicted Taxa

Actual discarded Taxa

Relative Abundance of Top Taxonomic Instances per Sample



