Actual Values

## Use of SCN features: Yes Max learning objects: 5000 objects/class Strategy N° 3

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

Confusion Matrix – In percent of Actual Value

Classification	Report Matrix
max 5000 learnin	g objects per class

precision recall f1-score

	Confusion Matrix – In percent of Actual Value													max 5000 learning objects per class															
																										precision	recall	f1-score	
Cirripedia (larvae)		2%	<1%	15%	<1%	2%	<1%		<1%	<1%	<1%	<1%	<1%		1%	1%	2%		<1				<1%	<1%	Cirripedia (larvae) (n=3231-train=5000)	0.93	0.75	0.83	
Acartia spp.		80%	<1%		<1%							<1%			<1%				<1		<1%				<b>Acartia spp.</b> (n=2290-train=4410)	0.88	0.80	0.84	
Oikopleura spp.		2%	82%	3%	2%			<1%		~ 10 <sub>4</sub>	<1%			<1%	2%	3%	<1%		<15	% <1%		<1%	<1%		<b>Oikopleura spp.</b> (n=1773-train=4507)	0.82	0.82	0.82	
Podon/Pleopsis spp.  Fritillaria spp.		2% 5%	<1% 53%		<1% 33%	11%	<1%	2%	10%	<1%		<1%	3%		4%	<1%	1%				<1%		1%		Podon/Pleopsis spp. (n=607-train=3605)	0.32	0.54	0.40	
Evadne spp.		1%			33/0	67%	110	<1%			<1%	170	5%		1%						170		<1%		Fritillaria spp. (n=475-train=844)	0.80	0.33	0.47	
Corycaeidae		14%	2%			<1%	70%	<1%				<1%		<1%		2%	<1%	<1%	<1	%		<1%			Evadne spp. (n=358-train=981)	0.54	0.67	0.60	
Calanoida (ci-ciii)	16%	16%	<1%	14%		4%	10%	11%	9%			5%			11%								4%		Corycaeidae (n=335-train=1760)		0.70	0.64	0.8
Paracalanus spp.	<1%	6%	<1%	1%		2%	<1%		84%					<1%		<1%	<1%					1%			Calanoida (ci-ciii)	0.22	0.11	0.17	0.0
Gastropoda (larvae/Limacina)	6%	5%		48%		4%		<1%	4%	21%	6%	<1%	2%		<1%								2%		(n=150-train=313)  Paracalanus spp.				
Bivalvia (larvae)				17%		1%	1%			1%	78%												2%		(n=141-train=1525) Gastropoda (larvae/Limacina)	0.24	0.84	0.37	
Polychaeta (larvae)	25%	6%		17%		6%	5%	2%	3%			25%	3%		2%	2%	3%	3%							(n=126-train=291)	0.79	0.21	0.33	
Hydrozoa (medusa)			2%	2%		4%			4%				82%			5%	2%								<b>Bivalvia (larvae)</b> (n=96-train=119)	0.82	0.78	0.80	0.6
Centropages spp.		30%	4%				2%					2%		18%			6%	18%	169	ó		4%			Polychaeta (larvae) (n=65-train=661)	0.25	0.25	0.25	
Echinodermata (larvae)	2%			17%	2%	50%						2%	14%			10%							2%		<b>Hydrozoa (medusa)</b> (n=55-train=301)	0.37	0.82	0.51	
Calycophorae (nectophore)  Decapoda-brachyura (zoeae)									6%			3%	3%	3%		78% 6%	5% 75%	5% 6%							Centropages spp. (n=50-train=119)	0.27	0.18	0.22	
Decapoda-non brachyura (larvae)		4%				4%			0/0				12%	3/0		0%	8%	73%							Echinodermata (larvae) (n=42-train=2649)	0.00	0.00	0.00	0.4
Tortanus spp.		4%				. •								4%		25%	12%			ó					Calycophorae (nectophore) (n=37-train=966)	0.19	0.78	0.30	
Ascidiacea (larvae)			65%																	35%					Decapoda-brachyura (zoeae) (n=32-train=343)	0.21	0.75	0.33	
Oithona spp.		65%	6%		6%		6%							12%				6%							Decapoda-non brachyura (larvae) (n=26-train=219)	0.45	0.73	0.56	
Pseudocalanus spp.									29%							14%		14%				43%			Tortanus spp. (n=24-train=88)		0.38	0.32	0.2
Copepoda (nauplii)	25%			25%				25%															25%		Ascidiacea (larvae)	0.00	0.35	0.48	
Bryozoa (larvae)																			\ \ \ \ \ \ \ \ \ \	4					(n=23-train=54) <b>Oithona spp.</b> (n=17-train=44)		0.00	0.00	
	Cirripe	Acartic	, Oikople Spp	Podon,	Please	in Sp.	Coryce Spp.	Calantaeidae	Parace Circin	Casti Nanus Spp.	pod Sivaly	. Tolych	Alydro (lange	Centro (medise	Chino Spp.	Oderm Calyco	Dohor Con	Doda	Poda	Tanus Sp.	diacoa (lano	Ona Spp.	Open Copen	Bryozog (Rouplii)	(n=17-train=44) Seudocalanus spp.				
		(lande)	). /	SOD	Pleopsis St.	%; %;	<b>~</b> .	٠,	Cicin	, Sp.	Bivalle (larva)	nae,	(land	"Medis	3/1/2	Calyco, Odermata (la	Trans	Dece Stophore	July Con	brachy,	land	7). Pe)	1145	o nauplii)			0.43	0.29	0.0
												"Nacina)	,				ツ	'lore)	tore	Per la	Napl				Copepoda (nauplii) (n=4-train=233)		0.25	0.05	
Cirine di alia sup anti capa capa capa capa capa capa capa cap													Bryozoa (larvae) (n=1-train=50)	0.00	0.00	0.00													
													macro avg	0.42	0.48	0.40													
																									weighted avg	0.78	0.71	0.73	

		40.00	0.00	0.00	22.21	0.00	0.00	. =0		100				
	Acartia spp.			0.0%	33.3% (n=1)		0.0%	1.5% (n=5)						
	Bivalvia (larvae)	0.0%	0.0%	0.0%	0.0%	0.0%	20.0% (n=5)	31.9% (n=107)						
	Bryozoa (larvae)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6% (n=2)						
	Calanoida (ci-ciii)	1.2% (n=7)	0.0%	0.0%	0.0%	0.0%	0.0%	0.3% (n=1)						
	Calycophorae (nectophore)	1.2% (n=7)	$16.7\% \ (n=1)$	3.2% (n=1)	0.0%	100.0% (n=3)	0.0%	0.0%		80				
	Centropages spp.	0.8% (n=5)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%						
	Cirripedia (larvae)	2.5% (n=15)	0.0%	3.2% (n=1)	0.0%	0.0%	0.0%	3.0% (n=10)						
	Copepoda (nauplii)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.5% (n=5)						
Э	Corycaeidae	10.6% (n=64)	0.0%	0.0%	33.3% (n=1)	0.0%	4.0% (n=1)	2.4% (n=8)		60				
Таха	Decapoda-brachyura (zoeae)	1.2% (n=7)	$16.7\% \ (n=1)$	0.0%	0.0%	0.0%	0.0%	0.3% (n=1)		00				
	Decapoda-non brachyura (larvae)	0.0%	33.3% (n=2)	0.0%	0.0%	0.0%	0.0%	0.3% (n=1)						
Predicted	Echinodermata (larvae)	0.3% (n=2)	0.0%	0.0%	0.0%	0.0%	0.0%	0.3% (n=1)						
	Evadne spp.	8.0% (n=48)	0.0%	19.4% (n=6)	33.3% (n=1)	0.0%	44.0% (n=11)	4.8% (n=16)						
	Fritillaria spp.	0.7% (n=4)	0.0%	0.0%	0.0%	0.0%	0.0%	0.3% (n=1)		40				
	Gastropoda (larvae/Limacina)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.4% (n=8)						
	Hydrozoa (medusa)	0.2% (n=1)	16.7% (n=1)	54.8% (n=17)	0.0%	0.0%	0.0%	1.5% (n=5)						
	Oikopleura spp.	1.2% (n=7)	0.0%	0.0%	0.0%	0.0%	0.0%	0.6% (n=2)						
	Paracalanus spp.	23.2% (n=140)	0.0%	0.0%	0.0%	0.0%	0.0%	2.4% (n=8)		20				
	Podon/Pleopsis spp.	1.2% (n=7)	0.0%	16.1% (n=5)	0.0%	0.0%	32.0% (n=8)	42.7% (n=143)						
	Polychaeta (larvae)	0.5% (n=3)	0.0%	3.2% (n=1)	0.0%	0.0%	0.0%	3.3% (n=11)						
	Pseudocalanus spp.	0.8% (n=5)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%						
	Tortanus spp.	0.3% (n=2)	16.7% (n=1)	0.0%	0.0%	0.0%	0.0%	0.0%		0				
		C <sub>9/2</sub>	Calanıı ida (ci <sub>V-V</sub> i)	$C_{t_{e_{D}}}$	Cyclope hora (larvae)	Euphys Pida (unid)	Ostrace n≥25 spp. (medu	Zooplank Oda <sup>n</sup> ≥335		0				
		$\eta \approx 603$	ida (ci	$s sp_n = 31$	hora negrope	$pid_{\mathbf{a}} \stackrel{\eta = 3}{\longleftrightarrow} \eta ys$	$a sp_{n} = 25$	oda n=335	ton					
			(Clv-vi)	ν,	(larvae)	(unid)	inedin		" (unic	d)				
					,		9,	30)						

Relative Abundance of Top Taxonomic Instances per Sample



