Use of SCN features: No

Max learning objects: 20000 objects/class Strategy N° 7

Actual Values

## NL 2021 Selected Samples prediction using all regions training set, Learning with selected samples classes with no low global training instances, no extra training categories, No Calanoida (civ-vi), Cyclopoida, Zooplankton classes in learning set

Confusion Matrix - In percent of Actual Value

ma	Classification Report Matrix max 20000 learning objects per class												
	precision	recall	f1-score										

precision recall f1-score

								C	20111431	on wid	U1 U/X	Per		ricia	at vate										precision	recall	f1-score
Acartia spp.	79%	<1%	7%	5%	1%		<1%	2%	<1%	3%			<1%			<1%	<1%		<1%		<1%	<1%		Acartia spp. (n=2490-train=20000)	0.75	0.79	0.77
Evadne spp.	<1%	89%	<1%	<1%	<1%	<1%	4%	<1%	<1%		<1%	2%	<1%	4%	<1%				<1%					Evadne spp. (n=1931-train=11064)	0.91	0.89	0.90
Temora spp.	19%	2%	57%	7%	2%	<1%	<1%	6%		5%			<1%	<1%		<1%	<1%		<1%		3%			Temora spp.	0.67	0.57	0.62
Pseudocalanus spp.	28%		10%	50%				3%		5%			<1%							<1%	3%		<1%	(n=1416-train=7347)  Pseudocalanus spp.			
Oithona spp.	14%	<1%	<1%		76%			2%	<1%	<1%	<1%					3%					<1%	<1%		(n=1044-train=4845)	0.00	0.50	0.58
Bryozoa (larvae)		24%			<1%	58%	3%	2%			2%		<1%	9%		<1%			<1%					Oithona spp (n=345-train=5881)	0.78	0.76	0.77
Podon/Pleopsis spp.	1%	13%	29%	2%		<1%	33%	4%	<1%	<1%				<1%					10%		1%		5%	Bryozoa (larvae) (n=248-train=1142)	0.92	0.58	0.71
Calanoida (ci-ciii)	18%	12%	14%	5%	4%		12%	24%		4%							3%		2%	2%			<1%	Podon/Pleopsis spp. (n=230-train=7347)	0.39	0.33	0.36
Oikopleura spp.	<1%		3%	2%	2%				76%		<1%					8%		3%					5%	Calanoida (ci-ciii) (n=130-train=5557)	0.14	0.24	0.18
Centropages spp.	10%		3%	1%					1%	78%												5%	1%	Oikopleura spp. (n=115-train=5305)		0.76	0.74
Echinodermata (larvae)	4%				14%		2%	2%	6%		18%			2%		48%			2%				2%				
Gastropoda (larvae/Limacina)		2%					2%					66%		4%	13%				13%					Centropages spp. (n=88-train=3620)		0.78	0.38
Harpacticoida- epibenthic	34%	4%	6%	4%	2%			2%					36%								11%			Echinodermata (larvae) (n=50-train=3043)	0.45	0.18	0.26
Hydrozoa (medusa)		2%				4%	6%				2%			55%		17%			4%	2%			6%	Gastropoda (larvae/Limacina) (n=47-train=3272)		0.66	0.55
Bivalvia (larvae)						5%	5%					7%		5%	73%				7%					Harpacticoida- epibenthic (n=47-train=555)	0.68	0.36	0.47
Fritillaria spp.	3%				6%				29%							62%								Hydrozoa (medusa) (n=47-train=4052)	0.20	0.55	0.29
Microcalanus spp.	6%	6%	13%	13%			19%	13%									13%		3%		13%			Bivalvia (larvae)	0.90	0.73	0.76
Chaetognatha									32%									61%	4%				4%	(n=44-train=3764) Fritillaria spp.		0.62	0.34
Polychaeta (larvae)	5%	10%	5%	5%			5%					5%	5%						55%				5%	(n=34-train=6992)	0.23		
Calanus spp.				7%						7%										71%			14%	Microcalanus spp. (n=31-train=80)	0.50	0.13	0.19
Eurytemora spp.	40%		10%	20%						20%											10%			Chaetognatha (n=28-train=89)	0.85	0.61	0.71
Tortanus spp.																						50%		Polychaeta (larvae) (n=20-train=1577)	0.19	0.55	0.28
Decapoda-non brachyura (larvae)		^	>			8					^			٨.		^	1			100%	^	>		Calanus spp. (n=14-train=359)	0.59	0.71	0.65
	Acartic	Sop	Temora Spp.	Spp	Oithorn Sp.	Styon	Podon, lange,	Calano Calano	Oikopi Po (ci, cii)	Centrol Centrol	Dage Chine	Castro, Odermata (la	Harpal Poda (larvae)	Tico;	Bixalute Onedusa)	Conge, Conge,	Microsop.	Chaete Calanus Spp.	Polych Polych	Saeta (lanae)	Sp.	Portanti Mora Spp.	Decapo	& Eurytemora spp.	0.04	0.10	0.02
		<b>~</b> .	λ,	~,	17115 50%	<i>i</i> <i>i</i>	"nae	DS'S SY		100	5/1/2	10/0/10	Tana (lana)	(1) (1):	Thedus of	"Nae	2/2	1/5 5/1/2	'ha	(lande)	) .20	500	<b>%</b>	(n=10-train=1818) Tortanus spp.			
													9	Macina	Thic									(n=2-train=203)	0.12	0.50	0.20
												icted V												Decapoda-non brachyura (larvae) (n=1-train=423)	0.00	0.00	0.00
											Fred	iciea v	atues											macro avg	0.49	0.52	0.47
																								weighted avg	0.73	0.70	0.71

## Predictions of discarded taxa from training 100 50.0% (n=3) 0.0% 47.2% (n=646) 0.0% 0.0% 0.0% 0.0% 0.0% 0.9% (n=3) Acartia spp. Bivalvia (larvae) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 4.1% (n=13) 0.0% 0.2% (n=3) 0.0% 0.0% 0.0% 0.0% 50.0% (n=1) 0.0% Bryozoa (larvae) 7.9% (n=25) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 2.2% (n=7) Calanoida (ci-ciii) 9.0% (n=123) 80 0.0% 0.1% (n=1) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% Calanus spp. 100.0% (n=1) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% Centropages spp. 1.9% (n=26) 1.3% (n=4) 0.0% 0.1% (n=1) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% Decapoda-non brachyura (larvae) Echinodermata (larvae) 0.0% 0.1% (n=1) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 60 0.0% 2.1% (n=29) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% **Predicted Taxa** Eurytemora spp. 0.0% 50.0% (n=1) 0.0% 0.0% 0.0% 0.0% 0.0% 20.4% (n=65) Evadne spp. 6.5% (n=89) Fritillaria spp. 0.0% 0.7% (n=10) 0.0% 0.0% 0.0% 0.0% 0.0% 25.0% (n=1) 3.1% (n=10) Gastropoda (larvae/Limacina) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 11.9% (n=38) 0.4% (n=5) 0.0% Harpacticoida- epibenthic 0.0% 0.0% 0.0% 50.0% (n=3) 0.0% 0.0% 0.6% (n=2) 40 Hydrozoa (medusa) 88.9% (n=8) 0.2% (n=3) 0.0% 0.0% 0.0% 0.0% 0.0% 75.0% (n=3) 11.0% (n=35) Microcalanus spp. 0.0% 0.1% (n=2) 50.0% (n=1) 0.0% 0.0% 0.0% 0.0% 0.0% 0.3% (n=1) 0.0% 0.0% Oikopleura spp. $\frac{11.1\% \text{ (n=1)}}{1.2\% \text{ (n=16)}}$ 0.0% 0.0% 0.0% 0.0% 0.6% (n=2) 0.0% 0.0% Oithona spp. 0.0% 8.5% (n=117) 0.0% 0.0% 0.0% 0.0% 3.1% (n=10) 20 0.0% 100.0% (n=1) 0.0% Podon/Pleopsis spp. 0.0% 1.5% (n=20) 0.0% 0.0% 0.0% 16.0% (n=51) Polychaeta (larvae) 0.0% 0.0% 0.0% 0.0% 0.6% (n=8) 0.0% 0.0% 50.0% (n=1) 9.1% (n=29) 8.0% (n=109) Pseudocalanus spp. 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 4.1% (n=13) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 11.8% (n=161) 3.1% (n=10) Temora spp. 0 Sarsia spp. (medusa) Aglantha spp. (medusa) Cyclopoida (unid) Monstrillidae Oncaeidae spp. Zooplankton (unid) Calanoida ">< n=1370 (civ-vi) Foraminifera" Ostracoda 1=1 n=6



