Use of SCN features: No

Max learning objects: 200 objects/class Strategy N° 4

Actual Values

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

Confusion Matrix - In percent of Actual Value

Classification	Report Matrix
max 200 learning	objects per class

precision recall f1-score

Contusion Matrix –								ıx – In percent of Actual Value														""	max 200 tearning objects per class								
													·															precision	recall	f1-score	
Acartia spp.	48%	<1%	7%	15%	4%	<1%		3%	<1%	<1%	<1%	10%			<1%	3%				2%	<1%	<1%		3%	4%	Acartia (n=2490-train:	a <b>spp.</b> =200)	0.73	0.48	0.58	
Evadne spp.		79%		<1%	<1%	7%	6%	<1%			<1%		1%	<1%		<1%		<1%			3%	2%	<1%		<1%	Evadne (n=1931-train:	e <b>spp.</b> =200)	0.96	0.79	0.87	
Temora spp.	11%	<1%	36%	9%	6%	<1%	<1%	4%		<1%		4%				3%		<1%		2%	4%	4%		1%	14%	<b>Temora</b> (n=1416-train:	<b>spp.</b> =200)	0.62	0.36	0.45	
Pseudocalanus spp.	20%		11%	44%	<1%		<1%	4%		<1%	<1%	5%				5%			<1%	6%		<1%		1%	2%	<b>Pseudocalanus</b> (n=1044-train:	s <b>spp.</b> =200)	0.47	0.44	0.45	
Oithona spp.	8%	<1%	<1%	<1%	82%	<1%		<1%			<1%	<1%			3%					<1%		<1%		<1%	2%	<b>Oithona</b> (n=345-train:	a <b>spp.</b> =200)	0.55	0.82	0.66	
Bryozoa (larvae)		5%				83%	2%				<1%		1%		<1%			<1%			1%	5%				<b>Bryozoa (l</b> a (n=248-train:	nrvae) =119)	0.58	0.83	0.68	
Podon/Pleopsis spp.		6%	5%	<1%		3%	22%		<1%	<1%		<1%				15%		15%		<1%	15%	17%			<1%	Podon/Pleopsis (n=230-train:	s <b>spp.</b> =200)	0.25	0.22	0.23	
Calanoida (ci-ciii)	9%	6%	3%	5%	6%	2%	5%	3%			<1%	3%				20%			2%	3%	5%	23%			4%	Calanoida (c (n=130-train:	i-ciii) =200)	0.02	0.03	0.03	0.
Oikopleura spp.				3%	3%	<1%		<1%	64%		<1%				10%		9%		2%	<1%			<1%	5%	<1%	<b>Oikopleura</b> (n=115-train:	<b>spp.</b> =200)	0.86	0.64	0.74	
Centropages spp.			5%	1%						72%									1%	3%				2%		Centropages (n=88-train	s <b>spp.</b> n=40)	0.85	0.72	0.78	
			370	170	240		204		20,	7 2 7 0	200				200			404	170	J/0	20,			۷,70	204	Echinodermata (la (n=50-train:	rvae) =200)	0.39	0.28	0.33	
Echinodermata (larvae)					24%		2%		2%		28%				28%			4%			2%				2%	Harpacticoida- epibe (n=47-train:	enthic =136)	0.08	0.68	0.15	0.4
Harpacticoida- epibenthic		2%	4%	2%	6%			4%				68%				2%						2%		4%	4%	Gastropoda (larvae/Lima (n=47-train:	ncina) =110)	0.48	0.64	0.55	
Gastropoda (larvae/Limacina)		9%					11%						64%	13%				4%								<b>Bivalvia (la</b> (n=44-train		0.62	0.77	0.69	
Bivalvia (larvae)						5%	7%						11%	77%												Fritillaria (n=34-train:	<b>spp.</b> =200)	0.30	0.71	0.42	0
Fritillaria spp.					15%				9%		6%				71%											Microcalanus (n=31-train	s <b>spp.</b> n=80)	0.07	0.52	0.12	0.
Microcalanus spp.		3%		3%				6%				6%				52%		13%			3%	6%			6%	<b>Chaetog</b> (n=28-train	natha n=67)	0.67	0.71	0.69	
Chaetognatha									21%						4%		71%		4%							Polychaeta (la (n=20-train:	nrvae) =200)	0.09	0.25	0.13	
Polychaeta (larvae)					10%		10%				5%		5%	5%		5%		25%			10%	15%	5%		5%	Calanus (n=14-train:	s <b>spp.</b> =200)	0.59	0.93	0.72	0
Calanus spp.										7%									93%							Eurytemora (n=10-train	<b>spp.</b> n=88)	0.01	0.20	0.03	
Eurytemora spp.	30%		20%	20%								10%								20%						<b>Cirripedia (la</b> (n=0-train:		-	-	-	
	Acartic	Spp.	Temol	Sella Spp.	Oithon	Bryo.	Podon	Calana	Oikolo	Centrol	Chino	Harpar	Castrol	Birdhic	Fritilla	Microe Spp.	Chaeto	Polych Polych	Calany Calany	Curyte	Cirripa	Copepo	Obelia	Cuphau	Cuphal	Copepoda (na (n=0-train:	<b>uplii)</b> =200)	-	-	-	
		<i>SP</i> 0.	<i>S</i> 00.	<i>SDD</i> .	Oithold Oithold	* 500.	Podon, Parae,	Calant Pleansis Sp	Oikop Oida (ci. ciil	in Spp.	Cchino Spp.	Harpala (la	Castrol Ticoida en	oda (lande	(lande)	SPP	Chaeto Spp.	Shatha .	Sacta Clande	Suryte,	OF SPP.	Copepo	Obelia (nauplii)	Spp. (nedu	Slaced (lat	Copepoda (na (n=0-train: Obelia spp. (me (n=0-train) (n=0-train) (na) (na) (na) (na) (na) (na) (na) (n	<b>dusa)</b> n=43)	-	-	-	0.0
									<i>A</i> ,				Castrop Chicoida epi	enthic	linacina)	/			`					.0	'9) '	Euphausiacea (la (n=0-train	i <b>rvae)</b> n=75)	-	-	-	
													icted V												trá	Euphausiacea (na aining (n=0-train:	<b>uplii)</b> =122)	-	-	-	
																									Clá	macro avg (	corr)	0.46	0.55	0.46	
																										weighted	avg		0.54	0.59	
																												nrocicion	rocall	f1 ccoro	

## Predictions of discarded taxa from training Acartia spp. 13.1% (n=180) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 50.0% (n=1) 0.0% 0.0% 0.0% 0.0% 11.3% (n=36) Bivalvia (larvae) 0.0% 0.0% 0.0% 4.3% (n=2) 0.0% 0.0% 0.0% 0.0% 1.2% (n=16) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 14.8% (n=47) Bryozoa (larvae) 8.5% (n=4) 100.0% (n=2) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 16.7% (n=1) 1.9% (n=6) Calanoida (ci-ciii) 7.8% (n=107) 0.0% 0.0% 0.1% (n=1) 0.0% 100.0% (n=1) 0.0% 4.3% (n=2) 0.0% 0.0% 0.0% 25.0% (n=1) 50.0% (n=1) 0.6% (n=2) Calanus spp. 80 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.1% (n=1) 0.0% 0.0% 0.0% 0.0% Centropages spp. 0.0% Cirripedia (larvae) 0.0% 3.6% (n=49) 0.0% 0.0% 0.0% 14.9% (n=7) 0.0% 0.0% 0.0% 25.0% (n=1) 2.5% (n=8) 5.8% (n=80) 4.4% (n=14) Copepoda (nauplii) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 2.1% (n=1) 0.0% 0.0% 0.0% 0.7% (n=10) 0.0% 0.0% 0.0% 0.0% 0.0% 2.2% (n=7) Echinodermata (larvae) 0.0% 2.5% (n=34) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% Euphausiacea (larvae) Taxa 60 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.6% (n=2) 7.4% (n=102) Euphausiacea (nauplii) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% Predicted 0.0% 1.7% (n=23) 0.0% 100.0% (n=1 25.0% (n=1) Eurytemora spp. 0.0% 2.7% (n=37) 0.0% 0.0% 10.6% (n=5) 0.0% 0.0% 0.0% 0.0% 0.0% 13.5% (n=43) Evadne spp. 50.0% (n=1) 10.6% (n=5) 0.0% 0.0% 1.6% (n=22) 0.0% 0.0% 0.0% 0.0% 0.0% Fritillaria spp. 0.0% 0.0% 1.3% (n=4) 0.0% 0.0% 0.0% 0.0% 100.0% (n=1) 2.1% (n=1) 0.0% 0.0% 0.0% 0.0% 0.0% 10.4% (n=33) 40 Gastropoda (larvae/Limacina) 0.0% 9.7% (n=133) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.9% (n=3) Harpacticoida- epibenthic 83.3% (n=5) 0.0% Microcalanus spp. 0.0% 6.0% (n=82) 50.0% (n=1) 0.0% 0.0% 4.3% (n=2) 0.0% 0.0% 0.0% 0.0% 5.0% (n=16) Obelia spp. (medusa) 77.8% (n=7) 0.0% 0.0% 0.0% 0.0% 27.7% (n=13) 0.0% 0.0% 0.0% 25.0% (n=1) 0.0% 0.0% 0.0% 0.0% 0.1% (n=1) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% Oikopleura spp. 11.1% (n=1) 0.0% 0.0% 20 0.0% 0.0% 0.0% Oithona spp. 0.0% 18.0% (n=247) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 3.1% (n=10) 0.0% 0.8% (n=11) 0.0% Podon/Pleopsis spp. 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 18.2% (n=58) 6.4% (n=3) Polychaeta (larvae) 11.1% (n=1) 0.4% (n=6) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 7.5% (n=24) 4.3% (n=2) 10.9% (n=149) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% Pseudocalanus spp. 0.0% 0.0% 1.6% (n=5) 0.0% 5.8% (n=79) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% Temora spp. Decapoda-non brachyura (larvae) Aglantha spp. (medusa) Calanoida "Civ-vi) Sarsia spp. " (medusa) Oncaeidae spp. Zooplankton (unid) Cyclopoida " (unid) Hydrozoa (medusa) Monstrillidae Tortanus spp. Ostracoda Extra training classes

Actual discarded Taxa



