Use of SCN features: Yes

Max learning objects: 5000 objects/class Strategy N° 3

Actual Values

## NL 2021 Selected Samples prediction using NL 2021 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 learning objects per class

precision

recall f1-score

55	cis per cias	3 ,		"						ı	ıal Value	ot Actu	percent	tx – In	on Matr	Confusi								
	f1-score	recall	precision	1																				
	0.74	0.72	0.75	Acartia spp. (n=2490-train=5000)			<1%		<1%			<1%				8%			3%	9%	7%	<1%	72%	Acartia spp.
	0.91	0.95	0.88	<b>Evadne spp.</b> (n=1931-train=2845)			<1%		<1%	<1%	1%					<1%	2%		<1%	<1%	<1%	95%		Evadne spp.
	0.60	0.55	0.66	<b>Temora spp.</b> (n=1416-train=5000)				<1%				<1%				17%	<1%		3%	9%	55%	2%	14%	Temora spp.
	0.57	0.55	0.59	Pseudocalanus spp. (n=1044-train=4552)		<1%		<1%				<1%				8%			<1%	55%	14%		23%	Pseudocalanus spp.
	0.72	0.79	0.65	Oithona spp.					2%				<1%			3%		<1%	79%		1%	1%	12%	Oithona spp.
	V., -		0.00	(n=345-train=1409)			<1%		<1%		1%	<1%	<1%			4%	<1%	38%			<1%	54%		Bryozoa (larvae)
	0.55	0.38	0.98	<b>Bryozoa (larvae)</b> (n=248-train=119)			23%	<1%	<1%				<1%			19%	15%			2%	20%	17%	1%	Podon/Pleopsis spp.
	0.22	0.15	0.37	Podon/Pleopsis spp. (n=230-train=201)		<1%										49%	5%		4%	6%	9%	14%	12%	Calanoida (ci-ciii)
	0.16	0.49	0.09	Calanoida (ci-ciii) (n=130-train=3713)		2%		<1%	28%				<1%		60%				3%	4%	2%			Oikopleura spp.
	0.69	0.60	0.82	Oikopleura spp. (n=115-train=761)									1%	20%	1%					3%	7%		67%	Centropages spp.
	0.34	0.20	1.00	Centropages spp. (n=88-train=40)					48%				20%		2%	8%			20%				2%	Echinodermata (larvae)
	0.30	0.20	0.59	Echinodermata (larvae)								21%				15%			9%	13%	6%		36%	Harpacticoida- epibenthic
				(n=50-train=276)  Harpacticoida- epibenthic			11%			11%	60%						11%					9%		stropoda (larvae/Limacina)
	0.33	0.21	0.71	(n=47-train=136)						73%	18%						2%	2%				5%		Bivalvia (larvae)
	0.53	0.60	0.47	Gastropoda (larvae/Limacina) (n=47-train=110)					79%				3%		3%				15%					Fritillaria spp.
	0.78	0.73	0.84	Bivalvia (larvae) (n=44-train=71)				10%								52%				13%	13%	13%		Microcalanus spp.
	0.38	0.79	0.25	Fritillaria spp. (n=34-train=3447)		4%		43%	11%						43%									Chaetognatha
	0.15	0.10	0.33	Microcalanus spp. (n=31-train=80)			50%									15%			10%	5%		15%	5%	Polychaeta (larvae)
	0.59	0.43	0.92	Chaetognatha (n=28-train=67)		79%														14%			7%	Calanus spp.
	0.21	0.50	0.13	Polychaeta (larvae)																30%	20%			Eurytemora spp.
	0.71	0.79	0.65	(n=20-train=452)  Calanus spp. (n=14-train=213)	Spp. Curytemora?	Calanus Reta (lande)	anatha Polycha	Microcolonus Spp.	ritillarie	Pilalvia Poda (la	Castrop	Ternoto (land	Sp.	Centrop	Oikoplei Oikoplei	Calanoile Calanoile Sp.	Codon/	Sp.	Oithona danus Spp.	Selidol Op.	Spp.	Evadne Spp.	Acartia	
	0.00	0.00	0.00	Eurytemora spp. (n=10-train=88)		"Naley		<i>79</i> ,	Pacina)	Bivalvia Poda (lanae/lin	Chiben.	(land	<b>%</b>	<b>ж</b> .	Ciij	Spp.	.6)		300					
	0.47	0.49	0.59	macro avg								5	d Values	Predicte										
	0.69	0.68	0.72	weighted avg																				

## Predictions of discarded taxa from training 100.0% (n=1) 16.7% (n=1)Acartia spp. 0.0% 24.5% (n=335) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 50.0% (n=1) 0.6% (n=2) Bivalvia (larvae) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 8.5% (n=27) 0.1% (n=1) 0.0% 0.0% 0.0% 0.0% 0.0% 2.1% (n=1) 0.0% 50.0% (n=1) 0.0% 2.2% (n=7) Bryozoa (larvae) 0.0% 80 31.6% (n=433) 50.0% (n=1) 0.0% Calanoida (ci-ciii) 0.0% 0.0% 0.0% 2.1% (n=1) 0.0% 16.7% (n=1) 0.0% 0.0% 8.2% (n=26) 0.1% (n=1) 25.0% (n=1) 50.0% (n=1) 0.6% (n=2) Calanus spp. 33.3% (n=3) 0.0% 100.0% (n=1) 0.0% 10.6% (n=5) 0.0% 0.0% 0.0% Echinodermata (larvae) 0.0% 0.1% (n=1) 0.0% 0.0% 0.0% 6.4% (n=3) 0.0% 0.0% 0.0% 0.0% 0.0% 0.9% (n=3) Evadne spp. 0.0% 5.3% (n=72) 50.0% (n=1) 0.0% 0.0% 27.7% (n=13) 0.0% 0.0% 50.0% (n=1) 0.0% 0.0% 40.6% (n=129) 60 0.0% Fritillaria spp. $\frac{11.1\% \text{ (n=1)}}{1.6\% \text{ (n=22)}}$ 0.0% 0.0% 0.0% 21.3% (n=10) 0.0% 0.0% 0.0% 25.0% (n=1) 3.1% (n=10) 0.0% 0.0% 0.0% 0.0% 100.0% (n=1) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 9.1% (n=29) Gastropoda (larvae/Limacina) Harpacticoida- epibenthic 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 33.3% (n=2) 0.0% 0.0% 0.0% 0.0% 40 0.0% 0.1% (n=1) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% Microcalanus spp. 0.0% 0.0% 0.0% Oithona spp. 0.0% 0.0% 0.0% 2.5% (n=8) 0.0% 11.7% (n=160) 0.0% 0.0% 0.0% 0.0% 16.7% (n=1) 0.0% Podon/Pleopsis spp. 0.0% 0.4% (n=6) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 10.1% (n=32) 4.3% (n=2) 20 Polychaeta (larvae) 55.6% (n=5) 0.4% (n=6) 0.0% 0.0% 0.0% 23.4% (n=11) 0.0% 0.0% 0.0% 50.0% (n=2) 0.0% 8.2% (n=26) Pseudocalanus spp. 0.0% 12.7% (n=174) 0.0% 0.0% 0.0% 0.0% 0.0% 16.7% (n=1) 0.0% 0.0% 0.0% 3.8% (n=12) 11.5% (n=158) 0.0% 0.0% Temora spp. 0.0% 0.0% 0.0% 0.0% 2.1% (n=1) 0.0% 0.0% 0.0% 1.6% (n=5) Decapoda-non brachyura (larvae) Sarsia spp. " (medusa) Aglantha n=1370 1000, n=9 (medusa) Zooplankton (unid) Calanoida "=< 1370 (civ-vi) Cyclopoida " (unid) Hydrozoa (medusa) Oncaeidae spp. Monstrillidae Tortanus spp. Ostracoda

**Predicted Taxa** 

Actual discarded Taxa



