Use of SCN features: Yes

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

Actual Values

## NL 2020 Selected Samples prediction using all regions training set, Learning with selected samples classes with no low global training instances, no extra training categories, No Anthoathecata, Calanoida, Copepoda, Zooplankton classes in learning set

Confusion Matrix – In percent of Actual Value

Classificati	on Report Matrix
max available lea	arning objects per class

precision recall f1-score

	Confusion Matrix – In percent of Actual Value														max		learning ob	.ass							
																						precision	recall	f1-score	
Temora spp.	48%	42%	3%	5%	<1%	<1%	<1%	<1%	<1%			<1%						<1%	<1%	<1%	<b>Temora spp.</b> (n=18103-train=7347)	0.85	0.48	0.61	
Acartia spp.		92%	1%		<1%		<1%		<1%		<1%					<1%			<1%	<1%	Acartia spp. (n=13302-train=111319)	0.56	0.92	0.70	
Evadne spp.		1%	88%	<1%		6%		<1%	<1%	<1%		2%	<1%			<1%	<1%		<1%	<1%	<b>Evadne spp.</b> (n=5228-train=11064)	0.85	0.88	0.87	
Pseudocalanus spp.		52%	<1%	26%	1%	<1%	<1%							<1%				<1%		<1%	Pseudocalanus spp. (n=3053-train=4845)	0.46	0.26	0.33	1.0
Centropages spp.		20%		2%	69%													<1%	<1%		Centropages spp. (n=330-train=3620)	0.69	0.69	0.69	
Podon/Pleopsis spp.		8%	9%	2%		25%		<1%										8%	1%	16%	(n=330-train=3020)  Podon/Pleopsis spp.				
Eurytemora spp.	2%	74%	4%			2%	17%		1%												(n=253-train=7347)	0.12	0.25	0.16	
Gastropoda (larvae/Limacina)			<1%			26%		59%		7%		5%								2%	Eurytemora spp. (n=178-train=1818)	0.30	0.17	0.22	0.8
Oithona spp.		18%	2%						78%							1%	1%				Gastropoda (larvae/Limacina) (n=112-train=3272)	0.52	0.59	0.55	
Bivalvia (larvae)								8%		89%		3%									Oithona spp. (n=98-train=5881)	0.36	0.78	0.49	
Oikopleura spp.		1%									79%			3%	4%	10%		3%			Bivalvia (larvae) (n=92-train=3764)	0.90	0.89	0.90	0.6
Hydrozoa (medusa)		3%	5%									33%		5%		2%		3%	44%	3%	Oikopleura spp. (n=70-train=5305)		0.79	0.83	
Harpacticoida- epibenthic		86%		8%	2%																(n=70-train=5305)  Hydrozoa (medusa)				
Calanus spp.				8%										64%				28%			(n=64-train=4052)	0.15	0.33	0.20	
Chaetognatha				7%							20%				73%						Harpacticoida- epibenthic (n=50-train=555)	0.00	0.00	0.00	0.4
Fritillaria spp.		29%									14%					43%	14%				Calanus spp. (n=25-train=359)	0.70	0.64	0.67	
Echinodermata (larvae)			40%			20%					20%					20%					<b>Chaetognatha</b> (n=15-train=89)	0.79	0.73	0.76	
ecapoda-non brachyura (larvae)																		100%			Fritillaria spp. (n=7-train=6992)	0.10	0.43	0.17	0.2
Obelia spp. (medusa)																			100%		Echinodermata (larvae)	0.00	0.00	0.00	
Polychaeta (larvae)	<i>\( \)</i>	4-	€.	100%	C	<i>∧</i>	Ć.	C	Q.	Ø.	Q.	4	4	C	$C_{\ell}$	<u> </u>	<u> </u>	$\Diamond$	Q <sub>t</sub>	Ą	(n=5-train=3043)  Decapoda-non brachyura (larvae)				
	<sup>lenora</sup>	Spp. Acarria	Spp. Sudne	SPP.	Ocalanus Spp.	Podon,	Curyten, Pleopsis Spp.	Castropo Nora Spp.	Old (1	Spp. Spp.	Oikople!	Marozo	Parpacific (medisa)	icoida.	Chaetog,	Prisilari	Chinode Spr	orman ecapol	da no	Polycho (medysa)	Decapoda-non brachyura (larvae) (n=2-train=423)  Obelia spp. (medusa) (n=1-train=1003)	0.05	1.00	0.10	
					45 DD.	500	Ap.	Tord Spp.	(lange/lin	Mar	'de,	70.	(collisa)	coida chibert	Voj.	<b>`¢</b>	. <i>D</i> ,	Decapolication (larvae)	Obelia Tarnon brachy	(Medusa)	Obelia spp. (medusa) (n=1-train=1003)	0.02	1.00	0.04	0.0
										Chaj					·C					(lande)	Polychaeta (larvae) (n=1-train=1577)	0.00	0.00	0.00	
										Predicte	d Values	3									macro avg	0.41	0.54	0.41	
																					weighted avg	0.72	0.66	0.65	

## Predictions of discarded taxa from training 100 0.0% 0.0% 0.0% 46.9% (n=15) 0.0% 0.0% **57.4%** (n=2617 0.0% 0.0% 8.9% (n=100) Acartia spp. 0.0% 0.0% Bivalvia (larvae) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 3.1% (n=35) Calanus spp. 30.0% (n=3) 100.0% (n=1) 50.0% (n=3) 0.0% 42.9% (n=6) 0.0% 0.0% (n=2) 0.0% 0.0% 50.0% (n=1) 0.0% 0.0% 0.0% 6.2% (n=2) 0.0% 0.0% 0.4% (n=20) 0.0% 0.0% 0.1% (n=1) Centropages spp. 80 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.1% (n=1) Decapoda-non brachyura (larvae) 0.1% (n=3) Echinodermata (larvae) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.1% (n=3) 0.0% 0.0% 0.6% (n=7) 0.1% (n=1) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% Eurytemora spp. 0.5% (n=24) 0.0% Evadne spp. 0.0% 0.0% 0.0% 0.0% 0.0% 15.3% (n=698) 0.0% 0.0% 32.4% (n=364) Taxa 60 Fritillaria spp. 0.0% 0.0% 16.7% (n=1) 0.0% 0.0% 0.0% 0.1% (n=6) 0.0% 0.0% 0.3% (n=3) Predicted Gastropoda (larvae/Limacina) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.5% (n=22) 0.0% 0.0% 5.8% (n=65) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.1% (n=1) Harpacticoida- epibenthic 0.0% 40 0.0% Hydrozoa (medusa) 20.0% (n=2) 0.0% 0.0% 0.0% 0.0% 0.2% (n=7) 0.0% 0.0% 7.9% (n=89) 0.0% 33.3% (n=2) 0.0% 0.0% 0.0% 0.2% (n=7) 0.0% 0.7% (n=8) Obelia spp. (medusa) 50.0% (n=5) 0.0% 0.0% 100.0% (n=1) Oikopleura spp. 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% (n=2) 0.0% 0.6% (n=7) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 1.7% (n=19) Oithona spp. 2.7% (n=122) 20 Podon/Pleopsis spp. 0.0% 0.0% 0.0% 0.0% 0.0% 50.0% (n=1) 5.1% (n=233) 0.0% 31.2% (n=350) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 1.6% (n=74) 0.0% 4.4% (n=49) Polychaeta (larvae) 0.0% 40.6% (n=13) 50.0% (n=7) 0.0% Pseudocalanus spp. 0.0% 0.0% 0.0% 3.3% (n=151) 50.0% (n=1) 0.0% 0.4% (n=4) 0.0% 0.0% 0.0% 50.0% (n=1) 12.5% (n=571) 0.0% Temora spp. 6.2% (n=2) 7.1% (n=1) 0.0% 1.7% (n=19) 0 Anthoathecata (medusa) $Agl_{anth_{a}} \int_{spp.}^{n=1} (m_{edusa})$ Calanoida (unid) Cnidaria (larvae) Metridia spp. Zooplankton (unid) Chiridius spp. Tomopteris spp. Copepode nerid n=1123

n=2

Relative Abundance of Top Taxonomic Instances per Sample Val Pred 1.0 -0.8 Relative Abundance 0.4 0.2 -0.0 S21 S22 S23 S24 S25 S26 S27 S28 S29 S30

Sample Short ID

