Use of SCN features: Yes

Actual Values

Max learning objects: 5000 objects/class Strategy N° 4

## NL 2020 Selected Samples prediction using NL 2020 training set, Learning with selected samples classes with no low regional training instances, with extra training categories, No Anthoathecata, Calanoida, Copepoda, 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

Confusion Matrix – In percent of Actual Value																	-	y objects per ctas.												
																									Temora sn	_	cision	recall	f1-score	
Temora spp.	52%	8%	3%	17%	<1	%		2%		<	<1%			<1%	<1%		<1%		12%	1%	2%	<1%		<1%	Temora sp (n=18103-train=500		).73	0.52	0.61	
Acartia spp.	19%	55%	<1%	10%	<1	%		2%		<	<1%			<1%	<1%	<1%			9%	<1%	1%	<1%	<1%	<1%	Acartia sp (n=13302-train=500		).77	0.55	0.64	
Evadne spp.	<1%	<1%	93%	<1%	1%	ó	<1%	<1%	<1%						<1%		<1%	<1%	2%	2%	<1%				Evadne sp (n=5228-train=284	<b>p.</b> 0. 5)	).87	0.93	0.90	
								40			4.0	4.0		4.0			40		00	4.0	4.0	40		40	Pseudocalanus sp (n=3053-train=455	<b>p.</b> 0.	).24	0.46	0.31	
Pseudocalanus spp.	28%	16%	<1%	46%				<1%		<	<1%	<1%		<1%			<1%		8%	<1%	<1%	<1%		<1%	Centropages sp (n=330-train=4	<b>p.</b> 0)	.00	0.02	0.05	
Centropages spp.	21%	73%		3%	2%															<1%	<1%				Podon/Pleopsis sp (n=253-train=20	<b>p.</b> 0.	).14	0.07	0.09	
Podon/Pleopsis spp.	19%		12%	3%	7%	ó						<1%			<1%		29%		6%	9%	15%				Eurytemora sp (n=178-train=8	<b>p.</b> 0	0.00	0.00	0.00	
Eurytemora spp.	12%	11%	4%	3%				13%											51%		7%				Gastropoda (larvae/Limacin (n=112-train=11	a) 0)	).52	0.33	0.40	
Gastropoda (larvae/Limacina)			12%		26	0,	33%		13%								12%				4%				Oithona sp (n=98-train=140	<b>p.</b> 0	).11	0.85	0.19	
iastropoua (tarvae/Etiliactila)			1 2/0		20	0	33%	_	13/0								1270				7/0				Bivalvia (larva (n=92-train=7	<b>e)</b> 0	).77	0.86	0.81	
Oithona spp.		6%	4%					85%						1%				1%	3%						Oikopleura sp (n=70-train=76	p. 0	0.96	0.76	0.85	
Bivalvia (larvae)							14%		86%																Harpacticoida- epibenth (n=50-train=13	nic o	0.28	0.22	0.25	
Oikopleura spp.	1%	1%								76%		1%	1%	19%											Calanus sp (n=25-train=21	p.	0.88	0.84	0.86	
Harpacticoida- epibenthic	8%	16%		30%				2%			22%						2%		16%				2%	2%	Chaetognatl	na o	).92	0.80	0.86	
																									(n=15-train=6	p. 0	0.06	0.71	0.11	
Calanus spp.				16%								84%													(n=7-train=344 Echinodermata (larva	e) 0	0.00	0.00	0.00	
Chaetognatha				7%						13%			80%												(n=5-train=27 Obelia spp. (medus	0)				
Fritillaria spp.								14%						71%					14%						(n=1-train=4 Polychaeta (larva	(3)	0.50	1.00	0.67	
Echinodermata (larvae)			20%		209	%		20%						20%					20%						(n=1-train=45)  Bryozoa (larva	52)	0.00	0.00	0.00	
, , , ,																									(n=0-train=11	9)	-	-	-	
Obelia spp. (medusa)																100%									Calanoida (ci-ci (n=0-train=371	3)	-	-	-	
Polychaeta (larvae)				100%																					<b>Cirripedia (larva</b> (n=0-train=61	1)	-	-	-	
	Temor	Acarre	Spp.	ne Sp.	Centropages Spr	don/p, Curyte	Castro Spp.	Oithon	Bivalvia Po	Oikopleuro (larvae)	Harpach	Calany	Chaetog	Pritilla	Chino Spp.	Obelia	Polych	Bryon	Calando (lanae)	Cirripo	Copepi	Micros	Cuphaus	Cuphaus	Copepoda (naupl (n=0-train=102		-	-	-	
		10/2	<i>PD</i> .	10.	Centropages Socialanus Spp.	Odon Pleopsis St.	Ora Spp.	"da lan	Bivalvia Pp. Pc. Linacina)	(larvae)	S00.	Coida Ch	Chactory Spp. Pibenthic	"Atha	Spp	Obelia Odermata (la	Pp. (medi	Bryon Bryon	(lande)	Ciripo Oda (ci.ciii)	(d (lande)	Microd (naupli)	Suphaus, Spp.	Cuphausiace (lange)	Copepoda (naupl (n=0-train=102)  Microcalanus sp (n=0-train=8)  Euphausiacea (larva	<b>p.</b> 0)	-	-	-	
							N,		(linacina)				enthic				de	'9)						ae)	Euphausiacea (larva (n=0-train=7	e <b>)</b> 5)	_	-	-	
											Predic	cted V	alues											Extra trainir		i <b>i)</b> 2)	_	-	-	
																								classe		r) 0.	.49	0.50	0.42	
																									weighted av	g 0.	.72	0.57	0.62	

## Predictions of discarded taxa from training 3.1% (n=1) 0.0% 0.0% 0.0% 0.0% 0.0% 10.5% (n=478) 0.0% 1.6% (n=1) 0.0% 0.0% 3.4% (n=38) Acartia spp. 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 7.7% (n=86) Bivalvia (larvae) Bryozoa (larvae) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.4% (n=5) 0.0% 0.0% 0.0% 0.0% 6.1% (n=68) Calanoida (ci-ciii) 12.5% (n=4) 0.0% 0.0% 27.3% (n=1244) 0.0% 1.6% (n=1) 0.0% 80 Calanus spp. 50.0% (n. 100.0% (n=1) 0.0% 0.0% 0.0% 0.0% (n=3) 28.6% (n=4) 0.0% 0.0% (n=2) 100.0% (n=2) 6.2% (n=4) 50.0% (n=1) Cirripedia (larvae) 0.0% 0.0% 0.0% 0.0% 14.3% (n=2) 0.0% 2.3% (n=106) 0.0% 15.6% (n=10) 0.0% 0.0% 1.6% (n=18) Copepoda (nauplii) 0.0% 0.0% 0.0% 0.0% 0.0% 50.0% (n=1) 7.8% (n=357) 0.0% 3.1% (n=2) 0.0% 0.0% 3.9% (n=44) Echinodermata (larvae) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.1% (n=4) 0.0% 0.0% 0.0% 0.0% 0.5% (n=6) Euphausiacea (nauplii) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.5% (n=21) 0.0% 0.0% 0.0% 0.0% 0.0% 60 Evadne spp. 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 12.1% (n=552) 0.0% 18.8% (n=12) 0.0% 0.0% 49.0% (n=550) Fritillaria spp. 0.0% 0.0% 16.7% (n=1) 0.0% 0.0% 0.0% 0.4% (n=20) 0.0% 3.1% (n=2) 0.0% 0.0% 0.7% (n=8) Gastropoda (larvae/Limacina) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% (n=2) 0.0% 0.0% 0.0% 0.0% 5.7% (n=64) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.1% (n=4) 0.0% 0.0% 0.0% 0.0% 0.0% Harpacticoida- epibenthic 40 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% Microcalanus spp. 0.0% 0.0% 0.2% (n=9) 0.0% 33.3% (n=2) 0.0% 0.0% 0.0% Obelia spp. (medusa) 50.0% (n=5) 0.0% 0.0% 0.0% 0.0% 0.0% 23.4% (n=15) 0.0% 0.3% (n=3) Oikopleura spp. 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 100.0% (n=1) Oithona spp. 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 8.2% (n=376) 0.0% 0.0% 0.0% 0.0% 1.4% (n=16) 20 Podon/Pleopsis spp. 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.8% (n=37) 0.0% 0.0% 0.0% 0.0% 10.2% (n=115) 0.0% 0.0% 0.0% 0.0% 0.0% 25.0% (n=16) 0.0% 0.0% 6.6% (n=74) Polychaeta (larvae) 0.0% 1.9% (n=86) 0.0% 0.0% 0.0% 78.1% (n=25) 0.0% 50.0% (n=1) 0.0% 0.6% (n=7) Pseudocalanus spp. 0.0% 50.0% (n=7) 0.0% 13.7% (n=627) 0.0% 1.9% (n=21) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 6.2% (n=2) 7.1% (n=1) 50.0% (n=1) 14.0% (n=637) 1.6% (n=1) Temora spp. Decapoda-non brachyura (larvae) Anthoathecata (medusa) Zooplankton (unid) Calanoida (unid) Cnidaria (larvae) Chiridius spp. Copepoda "=< ... n=4562 (unid) Metridia spp. Tomopteris spp. n=2 Extra training classes

**Predicted Taxa** 

Actual discarded Taxa

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

Sample Short ID

