Use of SCN features: Yes

Max learning objects: 5000 objects/class Strategy N° 1

Actual Values

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

Confusion Matrix - In percent of Actual Value

										Confi	ısıon	Matr	ux – I	n per	cent	01 AC	tual '	Value							
Acartia spp.	72%	<1%	7%	9%	3%			8%				<1%				<1%			<1%						
Evadne spp.		95%	<1%	<1%	<1%	<1%	2%	<1%						<1%	<1%	<1%			<1%						
Temora spp.	14%	2%	55%	9%	2%		<1%	18%				<1%					<1%								
Pseudocalanus spp.	23%		13%	55%	<1%			7%				<1%					<1%			<1%					
Oithona spp.	11%	1%	1%		80%	<1%		4%			<1%					2%									
Bryozoa (larvae)		57%				35%	<1%	4%			<1%			2%		1%			<1%						
Podon/Pleopsis spp.	1%	18%	17%	2%			17%	17%								<1%	1%		26%						
Calanoida (ci-ciii)	12%	14%	8%	6%	4%		5%	50%											<1%	<1%					
Oikopleura spp.			2%	4%	3%				60%		<1%					28%		<1%		2%					
Centropages spp.	66%		7%	2%						22%	1%									1%				1%	
Echinodermata (larvae)	4%				22%		2%	2%	2%		18%					48%			2%						
Harpacticoida- epibenthic	36%		9%	11%	9%			13%				23%													
Hydrozoa (medusa)		26%				2%	2%	4%			6%		2%		2%	21%			21%	4%	9%				
Gastropoda (larvae/Limacina)		11%					9%							60%	11%				11%						
Bivalvia (larvae)		2%				5%	2%							18%	73%										
Fritillaria spp.					12%			3%	3%		3%					79%									
Microcalanus spp.		10%		13%				65%									6%		6%						
Chaetognatha									32%							14%		50%		4%					
Polychaeta (larvae)	5%	20%		5%	5%			15%											50%						
Calanus spp.				14%						7%										79%					
Eurytemora spp.	50%		20%	30%																					
Aglantha spp. (medusa)																			11%	11%	78%				
Oncaeidae spp.	17%			17%	17%			17%				33%													
Sarsia spp. (medusa)			25%																50%		25%				
Ostracoda		50%				50%																			
Tortanus spp.	50%																			50%					
Decapoda–non brachyura (larvae)																				100%					
	Acarr	is Spp.	Tenor	PSEUL SPD.	Oitho, Jocalanus,	Bryon Spp.	Podoli, larvae	Calant Pleapsis	Oikop oida (ci-ci-ci-ci-ci-ci-ci-ci-ci-ci-ci-ci-ci-c	Centro, Spp.	Chine Podges Sp.	Harpate 1	Klydro, Cticoida (lanae)	Castro, (nedli enthic	Birally Pools (lar.	Pritilly derver lines	Micro Aria Spp. (ina)	Chaelanus St.	Polyconotha To.	Calanus Suryte, Spp.	Aglantha Sh.	ncaeidae Spl.	Ostral Spp. (mag	Portanus	Octable Spp.
													Predi	cted V	⁄alues										

Classification Report Matrix

ma		ation Repo arning obje	rt Matrix ects per cla
	precision	recall	f1-score
Acartia spp. (n=2490-train=5000)	0.75	0.72	0.74
Evadne spp. (n=1931-train=2845)	0.87	0.95	0.91
Temora spp. (n=1416-train=5000)	0.67	0.55	0.60
Pseudocalanus spp. (n=1044-train=4552)	0.59	0.55	0.57
Oithona spp. (n=345-train=1409)	0.66	0.80	0.72
Bryozoa (larvae) (n=248-train=119)	0.94	0.35	0.51
Podon/Pleopsis spp. (n=230-train=201)	0.39	0.17	0.23
Calanoida (ci-ciii) (n=130-train=3713)	0.09	0.50	0.16
<b>Oikopleura spp.</b> (n=115-train=761)	0.86	0.60	0.71
Centropages spp. (n=88-train=40)	0.95	0.22	0.35
Echinodermata (larvae) (n=50-train=276)	0.53	0.18	0.27
Harpacticoida- epibenthic (n=47-train=136)	0.69	0.23	0.35
<b>Hydrozoa (medusa)</b> (n=47-train=21)	1.00	0.02	0.04
Gastropoda (larvae/Limacina) (n=47-train=110)	0.49	0.60	0.54
Bivalvia (larvae) (n=44-train=71)	0.80	0.73	0.76
Fritillaria spp. (n=34-train=3447)	0.23	0.79	0.36
Microcalanus spp. (n=31-train=80)	0.22	0.06	0.10
<b>Chaetognatha</b> (n=28-train=67)	0.93	0.50	0.65
Polychaeta (larvae) (n=20-train=452)	0.10	0.50	0.17
Calanus spp. (n=14-train=213)	0.48	0.79	0.59
Eurytemora spp. (n=10-train=88)	0.00	0.00	0.00
<b>Aglantha spp. (medusa)</b> (n=9-train=21)	0.58	0.78	0.67
Oncaeidae spp. (n=6-train=16)	0.00	0.00	0.00
Sarsia spp. (medusa) (n=4-train=4)	0.00	0.00	0.00
Ostracoda (n=2-train=6)	0.00	0.00	0.00
<b>Tortanus spp.</b> (n=2-train=4)	0.00	0.00	0.00
ecapoda-non brachyura (larvae) (n=1-train=7)	0.00	0.00	0.00
macro avg	0.48	0.39	0.37
weighted avg	0.72	0.67	0.68
	precision	recall	f1-score

0.0

## Predictions of discarded taxa from training 100 0.0% 0.0% 100.0% (n=1) 0.6% (n=2) 24.1% (n=330) Acartia spp. 0.0% 0.0% 0.0% 0.0% 0.3% (n=1) Aglantha spp. (medusa) Bivalvia (larvae) 0.0% 0.0% 0.0% 0.0% 7.9% (n=25) 80 Bryozoa (larvae) 0.1% (n=1) 0.0% 0.0% 0.0% 2.5% (n=8) 0.0% 0.0% Calanoida (ci-ciii) 50.0% (n=1) 7.9% (n=25) 31.6% (n=433) 0.0% 0.0% 0.0% 0.3% (n=1) Calanus spp. 0.1% (n=1) 0.0% Echinodermata (larvae) 0.1% (n=1) 0.0% 0.0% 0.9% (n=3) 60 Predicted Taxa Evadne spp. 5.6% (n=77) 50.0% (n=1) 0.0% 0.0% 40.9% (n=130) 0.0% 0.0% 0.0% Fritillaria spp. 1.5% (n=20) 3.1% (n=10) Gastropoda (larvae/Limacina) 0.0% 0.0% 100.0% (n=1) 0.0% 8.8% (n=28) 40 Microcalanus spp. 0.1% (n=1) 0.0% 0.0% 0.0% 0.0% Oithona spp. 11.8% (n=161) 0.0% 0.0% 0.0% 2.5% (n=8) 0.0% 0.0% Ostracoda 0.0% 0.0% 0.9% (n=3) Podon/Pleopsis spp. 0.5% (n=7) 0.0% 0.0% 0.0% 10.1% (n=32) 20 Polychaeta (larvae) 0.4% (n=6) 0.0% 0.0% 0.0% 8.8% (n=28) 0.0% Pseudocalanus spp. 13.4% (n=184) 0.0% 0.0% 3.5% (n=11) 0.0% 0.0% 0.0% Temora spp. 10.8% (n=148) 0.9% (n=3) 0 Foraminifera $M_{onstrillidae}$ Zooplankton (unid) $C_{yclopoida}$ (unid)Calanoida (civ-vi)

Actual discarded Taxa

Relative Abundance of Top Taxonomic Instances per Sample



