Use of SCN features: Yes

Max learning objects: 20000 objects/class Strategy N° 7

Actual Values

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

Confusion Matrix – In percent of Actual Value

| | Classif | ication F | Report M | latrix |
|-----|---------|-----------|----------|-----------|
| max | 20000 | learning | objects | per class |

precision recall f1-score

| | | | | | | | | C | onfusi | on Ma | trix – | In per | cent of | f Actua | al Valı | ue | | | | | | | | má | ax 20000 le | , | • |
|---------------------------------------|-------|---------|--------------|--------|-----------------------|-------|-------------------|--------------|--------------------------|-----------------|---------------|-------------------------|-------------|------------|--------------------|------------------|---------|-----------------|---------|--------------|--------|----------------------|--|---|-----------------|----------------|----------|
| Acartia spp. | 82% | <1% | 6% | 5% | 1% | | <1% | 2% | <1% | 3% | | | <1% | | | <1% | <1% | | <1% | | <1% | | | Acartia spp. (n=2490-train=20000) | precision 0.74 | recall 0.82 | f1-score |
| Evadne spp. | <1% | 89% | <1% | <1% | <1% | <1% | 4% | <1% | | | <1% | <1% | <1% | 4% | <1% | <1% | | | <1% | | | | | Evadne spp. | 0.90 | 0.89 | 0.89 |
| Temora spp. | 19% | 2% | 58% | 6% | 2% | <1% | <1% | 6% | | 4% | | | | | | | <1% | | <1% | | 2% | | | (n=1931-train=11064) | 0.03 | | _ |
| Pseudocalanus spp. | 31% | | 11% | 49% | | | | 3% | | 4% | | | | | | | | | <1% | <1% | 2% | <1% | | Temora spp. (n=1416-train=7347) | | 0.58 | 0.63 |
| Oithona spp. | 17% | <1% | <1% | | 7 5% | | | 2% | | 1% | <1% | | | | | 2% | | | | | <1% | | | Pseudocalanus spp. (n=1044-train=4845) | 0.09 | 0.49 | 0.57 |
| Bryozoa (larvae) | | 33% | <1% | | <1% | 51% | 2% | 2% | | | 2% | | <1% | 6% | | <1% | | | 2% | | | | | Oithona spp. (n=345-train=5881) | 0.77 | 0.75 | 0.76 |
| Podon/Pleopsis spp. | 3% | 17% | 26% | 3% | | | 28% | 6% | <1% | 1% | | | | 1% | | | | | 8% | | 1% | | 5% | Bryozoa (larvae) (n=248-train=1142) | 0.91 | 0.51 | 0.65 |
| Calanoida (ci-ciii) | 22% | 15% | 12% | 4% | 5% | | 14% | 20% | | 3% | | | | | | | <1% | | 2% | <1% | <1% | | <1% | Podon/Pleopsis spp. (n=230-train=7347) | 0.34 | 0.28 | 0.31 |
| Oikopleura spp. | <1% | | 5% | <1% | 2% | | | | 72% | <1% | | | | | | 12% | | 2% | | | | | 4% | Calanoida (ci-ciii) (n=130-train=5557) | 0.12 | 0.20 | 0.15 |
| Centropages spp. | 10% | | 3% | 1% | | | | | | 80% | | | | | | | | | | | | 3% | 2% | Oikopleura spp. (n=115-train=5305) | | 0.72 | 0.73 |
| Echinodermata (larvae) | | | | | 18% | | 2% | 2% | 2% | | 16% | | | 4% | | 50% | | | 2% | | | | 2% | Centropages spp. | . 0.20 | 0.80 | 0.41 |
| Gastropoda (larvae/Limacina) | | 2% | | _ | | | 4% | _ | | | | 70% | | 4% | 11% | | | | 9% | | _ | | | (n=88-train=3620) Echinodermata (larvae) | 0.47 | 0.16 | 0.24 |
| Harpacticoida- epibenthic | | 2% | 9% | 6% | 4% | 60 | 00 | 4% | | | 00 | | 23% | -10 | | 470 | | | 20 | 20 | 4% | | Cast | (n=50-train=3043) ropoda (larvae/Limacina) | 0.47 | | |
| Hydrozoa (medusa) | | | 2% | | | 6% | 9% | | | | 2% | Ε0. | | 51% | 700 | 17% | | | 2% | 2% | | | 3.0 | (n=47-train=3272) | 0.59 | 0.70 | 0.64 |
| Bivalvia (larvae) Fritillaria spp. | | | | | 9% | 7% | 9% | | 29% | | | 5% | | 5% | 70% | 62% | | | 5% | | | | • | Harpacticoida- epibenthic (n=47-train=555) | 0.73 | 0.23 | 0.35 |
| Microcalanus spp. | | 13% | 13% | 13% | 970 | | 16% | 26% | 2970 | | | 3% | | | | 02/0 | 6% | | | | 3% | | | Hydrozoa (medusa) (n=47-train=4052) | 0.19 | 0.51 | 0.27 |
| Chaetognatha | | | 100 | 10 0 | | | | 200 | 50% | | | 9 0 | | | | | | 46% | | 4% | | | | Bivalvia (larvae) (n=44-train=3764) | 0.82 | 0.70 | 0.76 |
| Polychaeta (larvae) | | 15% | 5% | 5% | 5% | | 15% | | | | | 5% | | | | | | | 40% | | | | 5 % | Fritillaria spp. (n=34-train=6992) | 0.24 | 0.62 | 0.35 |
| Calanus spp. | | | | 14% | | | | | | 7% | | | | | | | | | | 71% | | | 7% | Microcalanus spp. (n=31-train=80) | 0.40 | 0.06 | 0.11 |
| Eurytemora spp. | 30% | | 20% | 20% | | | | | | 30% | | | | | | | | | | | | | | Chaetognatha (n=28-train=89) | | 0.46 | 0.60 |
| Tortanus spp. | | | | | | | | | | 50% | | | | | | | | | | | | 50% | | Polychaeta (larvae) | 0.17 | 0.40 | 0.24 |
| ecapoda-non brachyura (larvae) | | | | | | | | | | | | | | | | | | | | 100% | | | | (n=20-train=1577) Calanus spp. | | | |
| | Acari | is Spp. | Temoral Spp. | Selido | Oithol. | Bryon | Podon | D. Calano | Oikopi | Centrol Centrol | Chino | Castro | Harpac | Hydro | Birahi | ritilla, (lange) | Microco | Chaeto donus se | Polych | Seta (le | Suryte | Portanu | Decaport | Calanus spp. (n=14-train=359) | | 0.71 | 0.67 |
| | | 500 | <i>S</i> 10. | 100 | Oithol Ocalanus Sp | 50p. | Podon, Od (lande) | Pleopsis St. | Oikopl Oida (ci.ciii) | 112 SPD. | Chino of Spp. | Castrop dermata (la) | oda (larva) | Coida | Bivalliso (meduso) | Manael | 8/2/V | Chaeto | natha . | Seta (lanae) | | Tortany Mora Spp. | Decapoda non brachyura (lande) Decapod | Eurytemora spp. (n=10-train=1818) | 0.00 | 0.00 | 0.00 |
| | | | | | * | • | | , | Ų, | | | • | vae, " | (linacina) | Conthic | | | | | S | | | Chyura Clan | Tortanus spp. (n=2-train=203) | 0.20 | 0.50 | 0.29 |
| | | | | | | | | | | | | | | | | | | | | | | | Decapoo | la-non brachyura (larvae) (n=1-train=423) | 0.00 | 0.00 | 0.00 |
| | | | | | | | | | | | Predi | icted V | alues | | | | | | | | | | | macro avg | 0.50 | 0.48 | 0.45 |
| | | | | | | | | | | | | | | | | | | | | | | | | weighted avg | 0.73 | 0.70 | 0.71 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Predictions of discarded taxa from training 100 100.0% (n=1) 50.0% (n=3) 0.0% 47.2% (n=647) 0.0% 0.0% 0.0% 0.0% 1.9% (n=6) Acartia spp. Bivalvia (larvae) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 5.0% (n=16) 0.0% 0.2% (n=3) 0.0% 0.0% 0.0% 0.0% 100.0% (n=2) 0.0% Bryozoa (larvae) 6.0% (n=19) Calanoida (ci-ciii) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 2.8% (n=9) 8.5% (n=117) 80 Calanus spp. 11.1% (n=1) 0.1% (n=1) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.3% (n=1) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 1.5% (n=21) Centropages spp. Decapoda-non brachyura (larvae) 11.1% (n=1) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.6% (n=2) 0.1% (n=1) Echinodermata (larvae) 0.0% 0.1% (n=1) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.3% (n=1) 60 Eurytemora spp. 0.0% 1.5% (n=20) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% **Predicted Taxa** 0.0% 6.9% (n=95) 50.0% (n=1) 0.0% 0.0% 0.0% 0.0% 0.0% 23.0% (n=73) Evadne spp. Fritillaria spp. 0.0% 0.7% (n=9) 0.0% 0.0% 0.0% 0.0% 0.0% 25.0% (n=1) 2.8% (n=9) Gastropoda (larvae/Limacina) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 12.3% (n=39) 0.0% Harpacticoida- epibenthic 0.0% 0.1% (n=1) 0.0% 0.0% 50.0% (n=3) 0.0% 0.0% 0.6% (n=2) 40 Hydrozoa (medusa) 77.8% (n=7) 0.1% (n=2) 0.0% 0.0% 0.0% 0.0% 0.0% 75.0% (n=3) 11.3% (n=36) Microcalanus spp. 0.0% 0.1% (n=1) 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% Oikopleura spp. 0.0% 0.0% 0.0% 0.0% 0.0% 1.1% (n=15) 0.0% 0.0% 0.0% 0.0% 0.0% Oithona spp. 0.0% 9.3% (n=127) 0.0% 0.0% 0.0% 0.0% 3.5% (n=11) 20 0.0% 100.0% (n=1) 0.0% Podon/Pleopsis spp. 0.0% 1.5% (n=20) 0.0% 0.0% 0.0% 17.0% (n=54) Polychaeta (larvae) 0.0% 0.0% 0.0% 0.5% (n=7) 0.0% 0.0% 0.0% 0.0% 6.3% (n=20) 8.7% (n=119) Pseudocalanus spp. 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 4.1% (n=13) 11.9% (n=163) 50.0% (n=1)0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 2.2% (n=7) Temora spp. 0 Sarsia spp. (medusa) Aglantha spp. (medusa) Monstrillidae Oncaeidae 'spp. Zooplankton (unid) Cyclopoida "\", (unid) Calanoida "== 1370 (civ-vi) Foraminifera" Ostracoda n=6 1=1



