

Use of SCN features: Yes  
Max learning objects: Maximum objects/class  
Strategy N° 8

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

Confusion Matrix – In percent of Actual Value

Classification Report Matrix  
max available learning objects per class

Actual Values

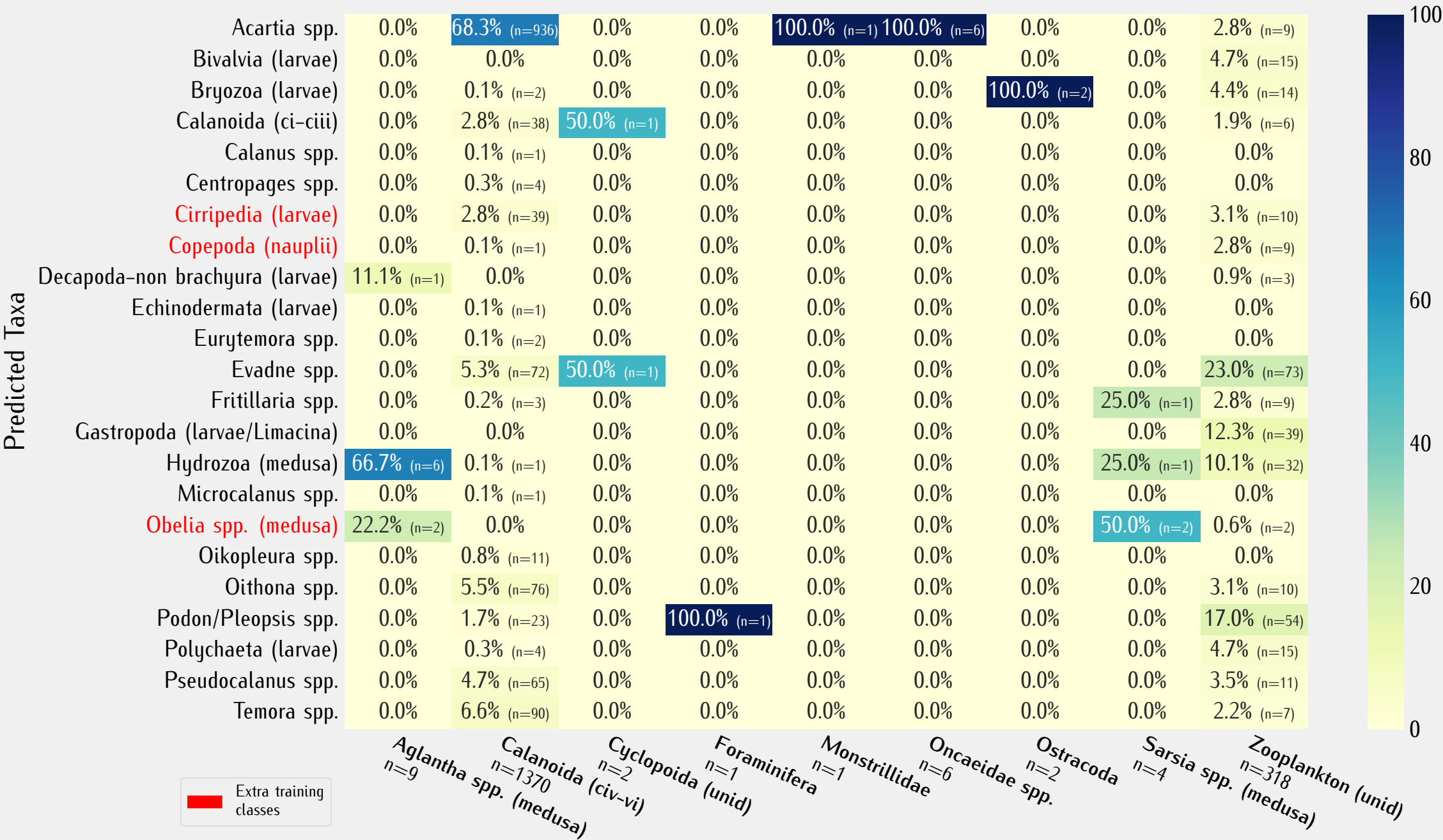
|                                 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |     |     |     |     |     |  |     |
|---------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|--|-----|
| Acartia spp.                    | 96% | <1% | 2%  | <1% | <1% |     |     | <1% | <1% | <1% |     |     |     |     | <1% | <1% |     |     |      |     |     | <1% |     | <1% |  |     |
| Evadne spp.                     | <1% | 88% | <1% |     | <1% | <1% | 4%  | <1% |     |     | <1% | 1%  | <1% | 4%  | <1% |     | <1% |     |      |     |     | 2%  | <1% | <1% |  |     |
| Temora spp.                     | 39% | 2%  | 48% | 3%  | <1% | <1% | <1% | 3%  |     |     | 2%  |     |     |     |     |     | <1% |     | <1%  |     |     | <1% | <1% | <1% |  | <1% |
| Pseudocalanus spp.              | 53% |     | 9%  | 35% |     |     |     | <1% |     |     | 1%  |     |     |     |     |     | <1% | <1% | <1%  |     |     | <1% |     |     |  |     |
| Oithona spp.                    | 30% | <1% | <1% |     | 66% |     |     | <1% |     |     |     | <1% |     |     | 1%  |     |     |     |      |     |     | <1% |     |     |  |     |
| Bryozoa (larvae)                |     | 29% | <1% |     | <1% | 48% | 2%  | 1%  |     |     |     | <1% |     | <1% | 7%  |     | <1% |     | 1%   |     |     | 5%  | 2%  |     |  |     |
| Podon/Pleopsis spp.             | 10% | 14% | 19% | 2%  |     |     | 27% | 1%  | <1% | <1% |     | <1% |     | <1% |     |     |     | 10% |      | <1% |     | 4%  | 10% | <1% |  |     |
| Calanoida (ci-ciii)             | 34% | 14% | 11% | 3%  | 4%  |     | 13% | 12% |     |     | 2%  |     |     |     |     |     | <1% | <1% |      |     | <1% | 4%  | 2%  |     |  |     |
| Oikopleura spp.                 | 3%  |     | 3%  | <1% | 2%  |     |     |     |     | 70% |     |     | <1% |     |     |     | 12% |     | 2%   |     |     | 6%  |     |     |  |     |
| Centropages spp.                | 19% |     | 3%  | 1%  |     |     |     |     |     |     | 70% |     |     |     |     |     |     |     |      |     |     | 3%  | 2%  |     |  |     |
| Echinodermata (larvae)          | 14% |     |     |     | 10% |     | 2%  |     | 2%  |     |     | 12% |     |     |     | 48% |     | 2%  |      |     | 2%  | 6%  |     | 2%  |  |     |
| Gastropoda (larvae/Limacina)    |     | 2%  |     |     |     |     | 2%  |     |     |     |     | 68% |     | 4%  | 15% |     |     | 9%  |      |     |     |     |     |     |  |     |
| Harpacticoida- epibenthic       | 87% | 2%  | 2%  |     | 4%  |     |     |     |     |     |     |     |     |     |     |     |     |     | 4%   |     |     |     |     |     |  |     |
| Hydrozoa (medusa)               |     |     |     |     |     | 2%  | 9%  |     |     |     |     | 2%  |     | 34% |     | 6%  |     |     |      |     | 4%  | 9%  |     | 34% |  |     |
| Bivalvia (larvae)               |     |     |     |     |     | 5%  | 2%  |     |     |     |     | 7%  |     | 7%  | 70% |     |     |     |      |     |     |     | 9%  |     |  |     |
| Fritillaria spp.                | 6%  |     |     |     | 6%  |     |     |     | 32% |     |     |     |     |     |     | 56% |     |     |      |     |     |     |     |     |  |     |
| Microcalanus spp.               | 16% | 19% | 10% | 10% |     |     | 10% | 19% |     |     |     | 3%  |     |     |     | 6%  |     | 3%  |      |     |     | 3%  |     |     |  |     |
| Chaetognatha                    |     |     |     |     |     |     |     |     | 39% |     |     |     |     |     |     |     | 54% | 4%  | 4%   |     |     |     |     |     |  |     |
| Polychaeta (larvae)             | 5%  |     |     | 5%  | 5%  |     | 15% |     |     |     |     | 5%  |     |     |     |     | 35% |     |      |     | 5%  | 25% |     |     |  |     |
| Calanus spp.                    |     |     |     | 14% |     |     |     |     |     |     | 7%  |     |     |     |     |     |     |     | 79%  |     |     |     |     |     |  |     |
| Eurytemora spp.                 | 70% |     | 10% | 20% |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |     |     |     |     |     |  |     |
| Tortanus spp.                   | 50% |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |     | 50% |     |     |     |  |     |
| Decapoda-non brachyura (larvae) |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     | 100% |     |     |     |     |     |  |     |

Extra  
training  
classes

|  | precision | recall | f1-score |
|--|-----------|--------|----------|
| Acartia spp.<br>(n=2490–train=111319)              | 0.64      | 0.96   | 0.77     |
| Evadne spp.<br>(n=1931–train=11064)                | 0.90      | 0.88   | 0.89     |
| Temora spp.<br>(n=1416–train=7347)                 | 0.76      | 0.48   | 0.59     |
| Pseudocalanus spp.<br>(n=1044–train=4845)          | 0.83      | 0.35   | 0.50     |
| Oithona spp.<br>(n=345–train=5881)                 | 0.83      | 0.66   | 0.73     |
| Bryozoa (larvae)<br>(n=248–train=1142)             | 0.95      | 0.48   | 0.64     |
| Podon/Pleopsis spp.<br>(n=230–train=7347)          | 0.34      | 0.27   | 0.30     |
| Calanoida (ci-ciii)<br>(n=130–train=5557)          | 0.19      | 0.12   | 0.15     |
| Oikopleura spp.<br>(n=115–train=5305)              | 0.76      | 0.70   | 0.73     |
| Centropages spp.<br>(n=88–train=3620)              | 0.53      | 0.70   | 0.61     |
| Echinodermata (larvae)<br>(n=50–train=3043)        | 0.50      | 0.12   | 0.19     |
| Gastropoda (larvae/Limacina)<br>(n=47–train=3272)  | 0.53      | 0.68   | 0.60     |
| Harpacticoida- epibenthic<br>(n=47–train=555)      | 0.00      | 0.00   | 0.00     |
| Hydrozoa (medusa)<br>(n=47–train=4052)             | 0.14      | 0.34   | 0.20     |
| Bivalvia (larvae)<br>(n=44–train=3764)             | 0.78      | 0.70   | 0.74     |
| Fritillaria spp.<br>(n=34–train=6992)              | 0.27      | 0.56   | 0.36     |
| Microcalanus spp.<br>(n=31–train=80)               | 0.67      | 0.06   | 0.12     |
| Chaetognatha<br>(n=28–train=89)                    | 0.88      | 0.54   | 0.67     |
| Polychaeta (larvae)<br>(n=20–train=1577)           | 0.16      | 0.35   | 0.22     |
| Calanus spp.<br>(n=14–train=359)                   | 0.69      | 0.79   | 0.73     |
| Eurytemora spp.<br>(n=10–train=1818)               | 0.00      | 0.00   | 0.00     |
| Tortanus spp.<br>(n=2–train=203)                   | 0.25      | 0.50   | 0.33     |
| Decapoda-non brachyura (larvae)<br>(n=1–train=423) | 0.00      | 0.00   | 0.00     |
| Cirripedia (larvae)<br>(n=0–train=7685)            | –         | –      | –        |
| Copepoda (nauplii)<br>(n=0–train=11555)            | –         | –      | –        |
| Obelia spp. (medusa)<br>(n=0–train=1003)           | –         | –      | –        |
| Euphausiacea (larvae)<br>(n=0–train=87)            | –         | –      | –        |
| Euphausiacea (nauplii)<br>(n=0–train=145)          | –         | –      | –        |
| macro avg (corr)                                   | 0.50      | 0.45   | 0.44     |
| weighted avg                                       | 0.74      | 0.69   | 0.68     |
|  | precision | recall | f1-score |



Predictions of discarded taxa from training



Actual discarded Taxa

Relative Abundance of Top Taxonomic Instances per Sample

