Use of SCN features: No

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

## 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

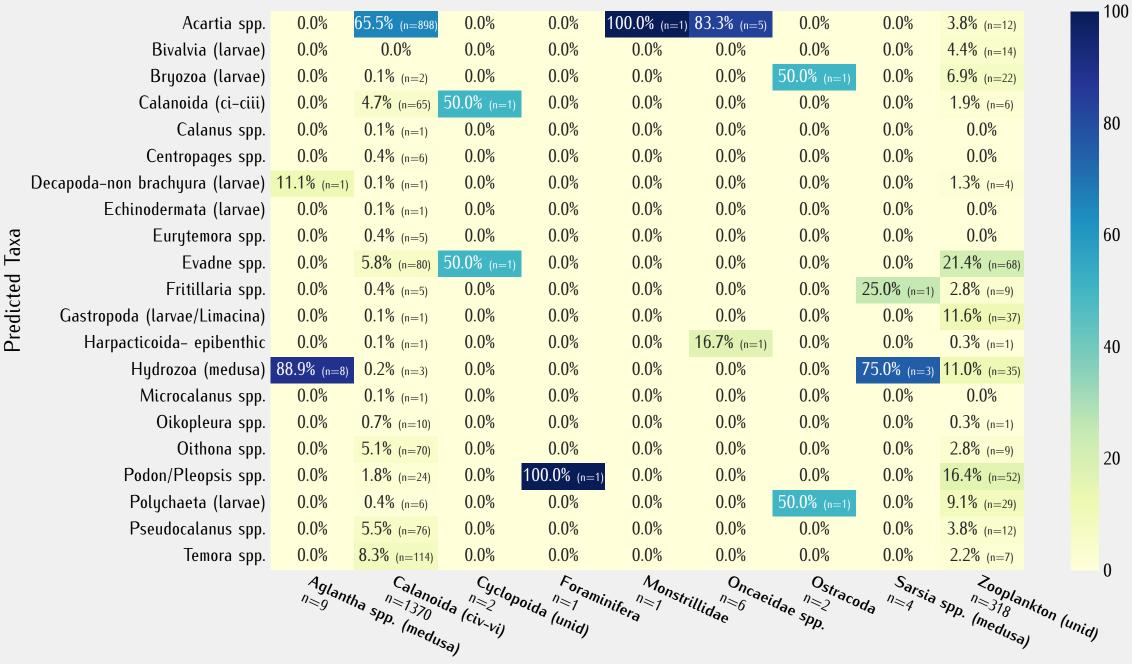
Classification Report Matrix max available learning objects per class

precision recall f1-score

|                                 |        |       |                   |               |               |        |               | C            | ontusto                   | )II IVId | ırıx – ı         | n per     | zent oi                 | Actu        | di Vdi             | ue                |         |             |        |                          |         |          |       |   | precision | _    | f1-score |
|---------------------------------|--------|-------|-------------------|---------------|---------------|--------|---------------|--------------|---------------------------|----------|------------------|-----------|-------------------------|-------------|--------------------|-------------------|---------|-------------|--------|--------------------------|---------|----------|-------|---|-----------|------|----------|
| Acartia spp.                    | 95%    | <1%   | 2%                | <1%           | <1%           |        | <1%           | <1%          | <1%                       | <1%      |                  |           |                         |             |                    | <1%               | <1%     |             |        |                          | <1%     |          |       | Acartia spp<br>(n=2490-train=111319   | 0.66      | 0.95 | 0.78     |
| Evadne spp.                     | . <1%  | 89%   | <1%               | <1%           | <1%           | <1%    | 4%            | <1%          | <1%                       |          | <1%              | 2%        | <1%                     | 4%          | <1%                |                   |         |             | <1%    |                          |         |          |       | Evadne spp  | 0.01      | 0.89 | 0.90     |
| Temora spp.                     | . 35%  | 2%    | 50%               | 4%            | <1%           | <1%    | <1%           | 3%           |                           | 2%       |                  |           |                         | <1%         |                    | <1%               |         |             | <1%    |                          | <1%     |          |       | (n=1931-train=11064   | )         |      |          |
| Pseudocalanus spp.              | . 46%  |       | 9%                | 39%           |               |        |               | 2%           |                           | 3%       |                  |           |                         |             |                    |                   |         |             |        | <1%                      | 1%      |          | <1%   | (n=1416-train=7347  | 0.74      | 0.50 | 0.60     |
| Oithona spp.                    | . 25%  | <1%   | <1%               |               | 69%           |        |               | 1%           | <1%                       |          | <1%              |           |                         |             |                    | 1%                |         |             |        |                          |         |          |       | Pseudocalanus spp<br>(n=1044-train=4845                                       | 0.80      | 0.39 | 0.53     |
| Bryozoa (larvae)                |        | 24%   | <1%               |               | <1%           | 60%    | 2%            | 1%           | <1%                       |          | 1%               |           | <1%                     | 8%          |                    | <1%               |         |             | <1%    |                          |         |          |       | Oithona spp<br>(n=345-train=5881  | 0.85      | 0.69 | 0.76     |
| Podon/Pleopsis spp.             | . 8%   | 13%   | 25%               | 2%            |               | <1%    | 34%           | <1%          | <1%                       | <1%      |                  |           |                         | 1%          |                    |                   |         |             | 9%     |                          |         |          | 6%    | Bryozoa (larvae<br>(n=248-train=1142  | 0.93      | 0.60 | 0.73     |
| Calanoida (ci-ciii)             | 30%    | 13%   | 15%               | 5%            | 4%            |        | 13%           | 13%          |                           | 2%       |                  |           |                         |             |                    |                   | 2%      |             | 2%     | <1%                      |         |          | <1%   | Podon/Pleopsis spp  | 0.40      | 0.34 | 0.37     |
| Oikopleura spp.                 | . 2%   |       | 3%                | 2%            | <1%           |        |               |              | 76%                       |          | <1%              |           |                         |             |                    | 10%               |         | 2%          |        |                          |         |          | 5%    | (n=230-train=7347)  Calanoida (ci-ciii  | )         |      | 0.14     |
| Centropages spp.                | . 25%  |       | 5%                | 1%            |               |        |               |              |                           | 62%      |                  |           |                         |             |                    |                   |         |             |        |                          |         | 5%       | 2%    | (n=130-train=5557   | 0.13      | 0.13 | 0.14     |
| Echinodermata (larvae)          | 12%    |       |                   |               | 8%            |        | 2%            |              | 6%                        |          | 14%              |           |                         | 2%          |                    | 52%               |         |             | 4%     |                          |         |          |       | Oikopleura spp<br>(n=115-train=5305   |           | 0.76 | 0.76     |
| Gastropoda (larvae/Limacina)    |        | 2%    |                   |               |               |        | 4%            |              |                           |          |                  | 66%       |                         | 4%          | 13%                |                   |         |             | 11%    |                          |         |          |       | Centropages spp<br>(n=88-train=3620   | 0.42      | 0.62 | 0.50     |
| Harpacticoida- epibenthic       | 81%    | 2%    | 2%                |               |               |        |               | 2%           |                           |          |                  |           | 6%                      |             |                    |                   |         |             |        |                          | 6%      |          |       | Echinodermata (larvae<br>(n=50-train=3043                                     | 0.41      | 0.14 | 0.21     |
| Hydrozoa (medusa)               |        | 4%    |                   |               |               | 4%     | 4%            |              |                           |          | 2%               |           |                         | 55%         |                    | 17%               |         |             | 4%     | 2%                       |         |          | 6%    | Gastropoda (larvae/Limacina<br>(n=47-train=3272                               | 0.48      | 0.66 | 0.55     |
| Bivalvia (larvae)               | )      |       |                   |               |               | 5%     | 7%            |              |                           |          |                  | 7%        |                         | 2%          | 73%                |                   |         |             | 7%     |                          |         |          |       | Harpacticoida- epibenthi  | C 0.50    | 0.06 | 0.11     |
| Fritillaria spp.                | . 6%   |       |                   |               | 6%            |        |               |              | 29%                       |          |                  |           |                         |             |                    | 59%               |         |             |        |                          |         |          |       | (n=47-train=555<br>Hydrozoa (medusa   | )<br>\    |      |          |
| Microcalanus spp.               | . 23%  | 10%   | 13%               | 6%            |               |        | 13%           | 19%          |                           |          |                  |           |                         |             |                    |                   | 13%     |             | 3%     |                          |         |          |       | (n=47-train=4052  | 0.20      | 0.55 | 0.30     |
| Chaetognatha                    |        |       |                   |               |               |        |               |              | 32%                       |          |                  |           |                         |             |                    |                   |         | 61%         | 4%     |                          |         |          | 4%    | Bivalvia (larvae<br>(n=44-train=3764  | 0.80      | 0.73 | 0.76     |
| Polychaeta (larvae)             | 5%     | 10%   | 5%                | 5%            |               |        | 5%            |              |                           |          |                  | 5%        | 5%                      |             |                    |                   |         |             | 55%    |                          |         |          | 5%    | Fritillaria spp<br>(n=34-train=6992   | 0.26      | 0.59 | 0.36     |
| Calanus spp.                    |        |       |                   | 7%            |               |        |               |              |                           | 7%       |                  |           |                         |             |                    |                   |         |             |        | 71%                      |         |          | 14%   | Microcalanus spp<br>(n=31-train=80  | 0.50      | 0.13 | 0.21     |
| Eurytemora spp.                 | 70%    |       | 20%               | 10%           |               |        |               |              |                           |          |                  |           |                         |             |                    |                   |         |             |        |                          |         |          |       | Chaetognatha<br>(n=28-train=89  | 0.89      | 0.61 | 0.72     |
| Tortanus spp.                   | . 50%  |       |                   |               |               |        |               |              |                           |          |                  |           |                         |             |                    |                   |         |             |        |                          |         | 50%      |       | Polychaeta (larvae  | 0.24      | 0.55 | 0.30     |
| Decapoda-non brachyura (larvae) |        |       |                   |               |               |        |               |              |                           |          |                  |           |                         |             |                    |                   |         |             |        | 100%                     |         |          |       | (n=20-train=1577<br>Calanus spp   | )         |      |          |
|                                 | Acarro | 500.  | Tenoral Pp.       | Sello<br>Spp. | Oitho         | Bryon  | Podon         | Calan        | Oikop/                    | Centro   | Chino            | Castro    | Harpa                   | Hydro       | Birah              | , Fritille        | Micros  | Chaet       | Polych | Calan                    | Curyto  | Tortan   | Oecap | (n=14-train=359   | 0.07      | 0.71 | 0.69     |
|                                 | •      | \$00. | ~ <i>Spp.</i> ~ ~ | <i>S0</i> 0.  | Oithon Oithon | Bryozo | Podon, lange, | Pleopsis St. | Oitople<br>Oida (ci.ciii) | Centrop  | Schinologes Spp. | ermata (1 | Poda (lan.              | Ticoida es  | Bivally Och (Medis | Prititles (large) | 10 Spp. | Chaeto Spp. | Polych | Calanti<br>Saeta (lanae) | Curyten | nord Sp. |       | Eurytemora spp<br>(n=10-train=1818  | 0.00      | 0.00 | 0.00     |
|                                 |        |       |                   |               | 79            | Ø.     |               | <i>3</i> 2   | de V                      |          | ,5,              | (4)       | Harpace<br>Poda (lanae) | linacip     | benthic            | ?/                |         | , D         |        | Q.                       | 2       |          |       | (n=14-train=359  Eurytemora spp (n=10-train=1818  Tortanus spp (n=2-train=203 | 0.20      | 0.50 | 0.29     |
|                                 |        |       |                   |               |               |        |               |              |                           |          |                  |           |                         | <i>'</i> 4) | /                  |                   |         |             |        |                          |         |          |       | Decapoda-non brachyura (larvae<br>(n=1-train=423                              | 0.00      | 0.00 | 0.00     |
|                                 |        |       |                   |               |               |        |               |              |                           |          | Predi            | cted V    | alues                   |             |                    |                   |         |             |        |                          |         |          |       | macro avo   |           | 0.48 | 0.46     |
|                                 |        |       |                   |               |               |        |               |              |                           |          |                  |           |                         |             |                    |                   |         |             |        |                          |         |          |       |   |           |      |          |
|                                 |        |       |                   |               |               |        |               |              |                           |          |                  |           |                         |             |                    |                   |         |             |        |                          |         |          |       | weighted avo  | 0.74      | 0.71 | 0.70     |

Actual Values

## Predictions of discarded taxa from training



Relative Abundance of Top Taxonomic Instances per Sample

