Gulf Selected Samples prediction using all regions training set,
Use of SCN features: Yes Learning with selected samples classes with no low global training instances, with extra regional training categories,
Max learning objects: Maximum objects/class
Strategy N° 12

Gulf Selected Samples prediction using all regions training set,
With Calanoida, Cyclopoida and Zooplankton classes in learning set

Actual Values

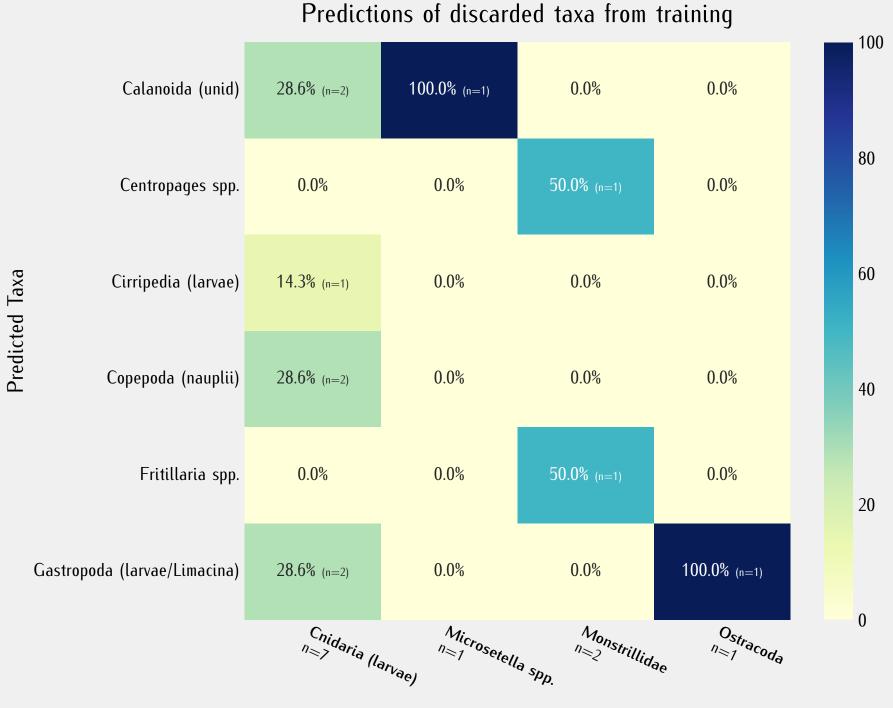
Classification Report Matrix max available learning objects per class

precision

recall

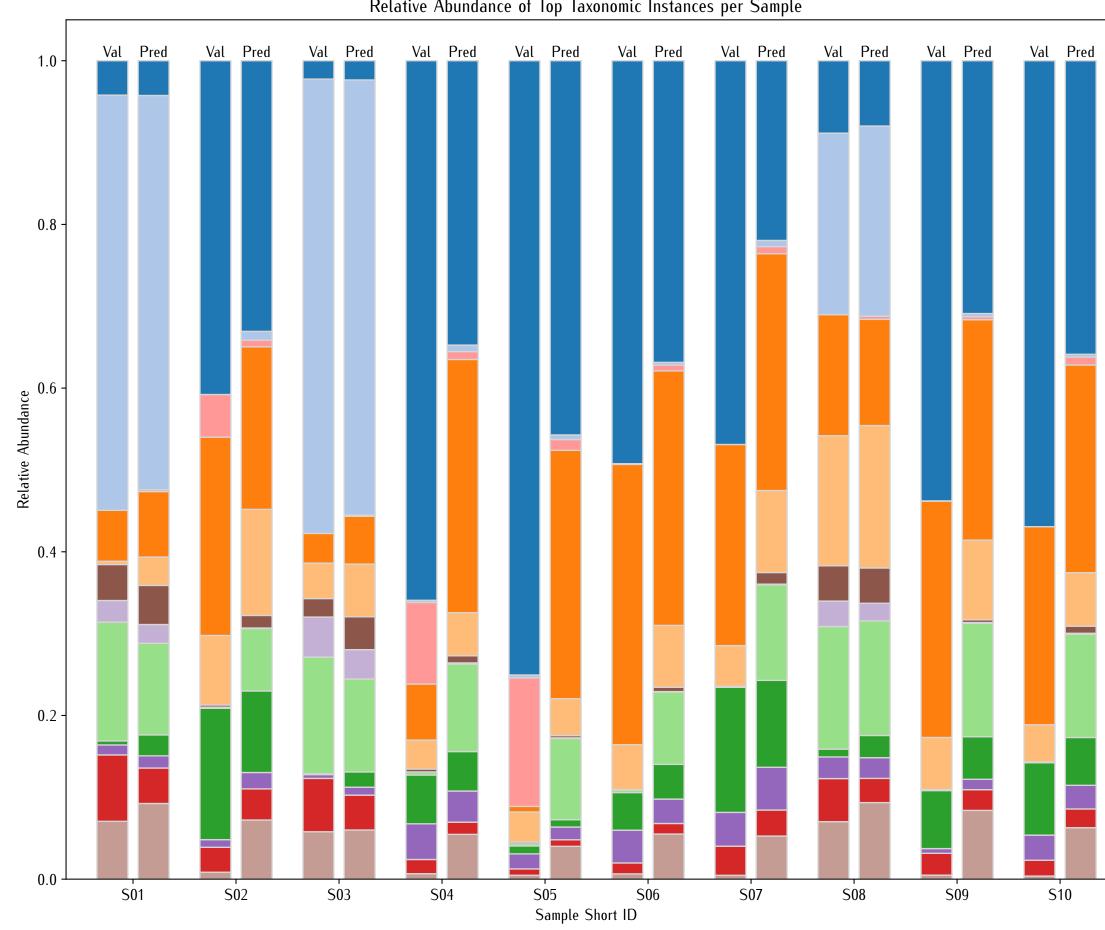
f1-score

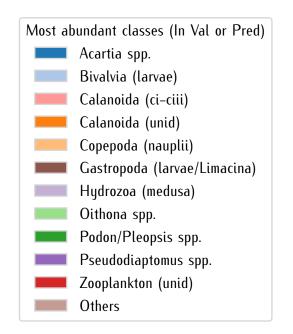
| Polymore (larve)   1   |                                 |          |                    |                   |       |         |          |          |          |             | Co        | onfusion Má | ıtrix -   | - In p  | oercei    | nt of   | Actı       | ual V  | alue    |                 |              |                    |                               |                 |       | m  | ax availab | le learning | objects per o | class |
|--|---------------------------------|----------|--------------------|-------------------|-------|---------|----------|----------|----------|-------------|-----------|-------------|-----------|---------|-----------|---------|------------|--------|---------|-----------------|--------------|--------------------|-------------------------------|-----------------|-------|--|------------|-------------|---------------|-------|
| Second    |                                 |          |                    |                   |       |         |          |          |          |             |           |             |           |         |           |         |            |        |         |                 |              |                    |                               |                 |       | Δ  | •          | on recall   | f1-score      |       |
| Carrol (red)   | Acartia spp.                    | 60%      | 199                | % <1 <sup>9</sup> | % <1% | 14%     | <1%      | <1% <1   | 1% <1%   |             | <1%       | <1% <1% <1% | <1%       | <1%     | <1%       | <1%     | <1%        | 1% <   | <1%     | <1% <1%         | <1% <1%      | <1% <1%            | <1%                           |                 |       | Acartia spp<br>(n=18062-train=111319         | 0.96       | 0.60        | 0.74          |       |
| Separate Parales Paral | Bivalvia (larvae)               | 92       | % <1               | % 1%              | <1%   | i i     | 2%       | <′       | 1% <1%   | 3%          |           | <1% <19     | ó         |         |           | <1%     |            | <1% <  | <1%     |                 | <1% <1%      |                    |                               |                 |       | Bivalvia (larvae<br>(n=7955-train=3764       | 0.93       | 0.92        | 0.93          |       |
| Control proper control   Part   Par   | Calanoida (unid)                | 4% <1    | l% 62 <sup>9</sup> | 4%                | 1%    | 8%      | 2%       | 1% 59    | % <1%    | <1%         | <1%       | <1% <1%     | <1%       |         | 2%        | <1%     | <1%        | 5%     | 4%      | <1%             | <1% <1%      | <1% <1%            |                               |                 |       |  |            | 0.62        | 0.53          |       |
| File Description of the Park o | Copepoda (nauplii)              | 19       | <15                | % 93%             | <1%   | <1%     | 2%       |          |          | <1%         | •         | <1% <1%     |           |         | <1%       | <1%     |            |        | 1%      |                 | <1% <1%      |                    |                               |                 |       | Copepoda (naupli                             | 0.64       | 0.93        | 0.76          |       |
| Cathonic part   10   10   10   10   10   10   10   1   | Podon/Pleopsis spp.             | <1% 3%   | % <1 <sup>5</sup>  | % 13%             | 62%   | <1%     | 10%      |          | <1%      | 7%          | <1%       | <1% <1%     |           |         |           |         |            | <1%    | 1%      |                 | <1%          |                    | <1%                           |                 |       | Podon/Pleopsis spp                           | 0.75       | 0.62        | 0.68          |       |
| Mathematic and the property of the property    | Oithona spp.                    | 2%       | 169                | % <1 <sup>9</sup> | <1%   | 75%     | <1%      | <1% 29   | %        |             |           | <1% <1%     | <1%       |         | 1%        | <1%     |            | <1%    | 1%      |                 | <1% <1%      |                    |                               |                 |       | Oithona spp                                  | ) 0.25     | _           |               |       |
| Selection of the content of the cont | Zooplankton (unid)              | 19       | % 3%               | 21%               | 10%   | <1%     | 32%      | <1% <1   | 1% <1%   | 6%          | <1%       | 2% <1% <19  | ó         |         | <1%       | <1%     |            | <1%    | 1%      |                 | <1% <1%      |                    |                               |                 |       | (n=2572-train=5881                           | ) 0.55     |             |               | 1.0   |
| Reduction process of the control of  | Calanoida (ci-ciii)             | <1%      | 669                | 3%                | 2%    | 6%      | 2%       | 2% 39    | %        | <1%         |           | <1% <1%     | <1%       |         | 2%        | <1%     |            | 7%     | 4%      |                 | <1% <1%      |                    |                               |                 |       | (n=1822-train=6498                           | 0.73       | 0.32        | 0.37          |       |
| Part   | Pseudodiaptomus spp.            | 5%       | 229                | % 2%              | <1%   | 17%     | <1%      | 2% 43    | 3%       | <1%         | •         | <1% <1%     | <1%       |         | <1%       | <1%     |            | 2%     | 5%      | <1%             |              | <1% <1%            |                               |                 |       | (n=1348-train=5557                           | 0.09       | 0.02        | 0.03          |       |
| Temporary   1  | Hydrozoa (medusa)               | 2% 29    | % 2%               | < 19              | % 6%  | <1%     | 2%       | <1%      | 69%      | 5%          | <1%       | <1% <1%     |           |         | <1%       |         | <1%        | 6% <   | <1%     | <1%             | 1%           |                    |                               |                 |       |  |            | 0.43        | 0.41          |       |
| Remote Sign 12   19   19   19   19   19   19   19  | Gastropoda (larvae/Limacina)    | <1% 12   | % 1%               | 7%                | 10%   | <1%     | 5%       |          | 1%       | 61%         |           | <1% <1%     |           |         |           |         |            | <1% <  | <1%     |                 |              |                    |                               |                 |       | <b>Hydrozoa (medusa</b><br>(n=671-train=4052 | 0.88       | 0.69        | 0.77          |       |
| Beginner allerwy CP  | Temora spp.                     | 7%       | 189                | % 2%              | <1%   | 3%      | <1%      | 4% 11    | 1%       | <1%         | 29%       | <1%         |           | <1%     | <1%       |         |            | 9%     | 4%      | 8%              |              | 1% <1%             |                               |                 |       | Gastropoda (larvae/Limacina                  | 0.38       | 0.61        | 0.47          | 0.8   |
| Perplace (group of the control of th | Bryozoa (larvae)                | <1% <1   | 1% 2%              | 5 26%             | 6 21% |         | 10%      |          |          | 5%          |           | 33% 2%      |           |         |           |         |            | <      | <1%     |                 | <1%          |                    |                               |                 |       | Temora spp                                   | 0.50       | 0.29        | 0.37          | 3.3   |
| Additional flavored f | Polychaeta (larvae)             | <1%      | 5%                 | 5 23%             | 5%    | <1%     | 3%       | <1% <1   | 1%       | <1%         | <1%       | <1% 38%     |           |         | 3%        |         |            | 5% 1   | 3%      | <1%             | <1%          | <1%                | <1%                           |                 |       | Bryozoa (larvae                              | 0.41       | 0.33        | 0.37          |       |
| Hampedication—splending  | Ascidiacea (larvae)             | 1%       | 1%                 | i                 |       | 3%      |          |          |          |             |           | 1% 91%      |           |         |           |         |            |        |         | <1%             | <1% 2%       |                    |                               |                 |       | •  | .)         |             |               |       |
| Cethogogie ago, M. 1.  | Harpacticoida- epibenthic       | 6%       | 30%                | % 5%              |       | 35%     | <1%      | 2% 49    | %        |             |           |             | 9%        |         | <1%       | 4%      |            | <1% <  | <1%     | 2%              | <1%          |                    |                               |                 |       | (n=237-train=1577                            | 0.00       |             |               |       |
| Fittimelements Browned   1   | Centropages spp.                | 61%      |                    |                   |       | 16%     |          | 7%       |          |             | 5%        |             |           | 9%      |           |         |            |        | 2%      |                 |              |                    |                               |                 |       | (n=194-train=861                             | 0.90       | 0.91        | 0.94          |       |
| Cyclopoda (paris)  Obelia spe, (medica)  Charles app. (medica)  Char | Echinodermata (larvae)          |          | 5%                 | s 8%              | 11%   |         |          | 3% 39    | %        |             |           |             |           |         | 24%       |         |            | 19% 2  | 27%     |                 |              |                    |                               |                 |       | (n=108-train=555                             | 0.19       | 0.09        | 0.12          | 0.6   |
| Chelia spp. (nestina)   5%   10%   5%   10%   5%   10%   5%   10   | Cyclopoida (unid)               |          | 179                | 13%               | 6 4%  | 9%      |          | 13       | 3%       |             |           | 9%          | 9%        |         |           | 22%     |            |        | 4%      |                 |              |                    |                               |                 |       | Centropages spp<br>(n=44-train=3620          | 0.06       | 0.09        | 0.07          |       |
| Cumpedo labase    Decorporation   Decorporat   | Obelia spp. (medusa)            | 5%       | 10%                | %                 | 5%    | 14%     |          |          | 5%       |             |           |             |           |         |           |         | 24%        | 24% 1  | 0%      |                 | 5%           |                    |                               |                 |       |  |            | 0.24        | 0.05          |       |
| Carripedia (larver)  Chaetographia  Chaetographia  Chaetographia  Sys.   18    | Evadne spp.                     |          | 6%                 | 5                 |       |         |          |          | 6%       |             |           |             |           |         |           |         |            | 75% 1  | 2%      |                 |              |                    |                               |                 |       | Cyclopoida (unic<br>(n=23-train=143          | 0.08       | 0.22        | 0.12          |       |
| Checkedorum parts   State      | Cirripedia (larvae)             |          | 6%                 | 44%               | 6%    |         |          |          |          |             |           |             |           |         | 6%        |         |            | 3      | 88%     |                 |              |                    |                               |                 |       | Obelia spp. (medusa                          | 0.42       | 0.24        | 0.30          |       |
| Pseudoclamus spp   72   144   144   144   144   145    | Chaetognatha                    |          |                    |                   |       | 8%      |          |          |          |             |           |             |           |         |           |         |            |        |         |                 | 23% 69%      |                    |                               |                 |       | Evadne sp                                    | 0.01       | 0.75        | 0.03          | 0.4   |
| Catedonal   Cate   | Pseudocalanus spp.              | 57%      |                    |                   |       |         |          | 14%      |          |             | 14%       |             |           |         |           |         |            |        |         | 14%             |              |                    |                               |                 |       | Cirripedia (larvae                           | ·)<br>0.01 |             |               |       |
| Tritillaria spp.   | Decapoda-non brachyura (larvae) |          |                    |                   |       |         |          |          |          |             |           |             |           |         |           |         |            |        |         | 100%            |              |                    |                               |                 |       | ·  | )          |             |               |       |
| Okseichthuse (larvae) Parotalamus spp. Fruttleran spp. Decapada-brachyura (zoeca)  Decapada-brachyura (zoeca)  Protection of the special of t | Fritillaria spp.                |          |                    |                   |       |         |          |          |          |             |           |             |           |         |           |         |            |        |         |                 | 67% 33%      |                    |                               |                 |       | (n=13-train=89                               | 0.00       |             |               |       |
| Osteichtluges (laraer)  Pararalanus spp. Eurytemana spp. Decapoda-brachyura (zoeae)  Decapoda-brachyura (zoeae)  Pararalanus spp.  Decapoda-brachyura (zoeae)  Pararalanus spp. Decapoda-brachyura (zoeae)  Perdicted Values  Predicted Values  Decapoda-brachyura (zoeae)  Calanus spp. (in-0-train-1619)  Latira  Totalus spp. (in-0-train-203)  Totalus spp. (in-0-train-204)  Totalus spp. (in-0-train-203)  Totalus spp. (in-0-train-204)  Totalus spp. (in | Oikopleura spp.                 |          |                    |                   |       |         |          |          |          |             |           |             |           |         |           |         |            |        |         |                 | 100%         |                    |                               |                 |       | (n=7-train=4845                              | 0.01       | 0.14        | 0.03          |       |
| Paracalanus spp.  Eurytemora spp.  Decapoda-brachyura (zoeae)  Decapoda-brachyura (zoeae)  Paracalanus spp.  Costeichthyes (larvae) (iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii  | Osteichthyes (larvae)           |          |                    |                   |       |         |          |          |          |             |           |             |           |         |           |         |            |        |         |                 | 100%         |                    |                               |                 |       | (n=4-train=423                               | 0.57       | 1.00        | 0.73          |       |
| Eurytemora spp.   0.00   0.0   |                                 |          |                    |                   |       |         |          |          |          |             |           |             |           |         |           |         |            |        |         |                 |              |                    |                               |                 |       | (n=3-train=6992                              | .)         | 0.67        | 0.03          | 0.2   |
| Decapoda-brachyura (zoeae)    100  |                                 |          |                    |                   |       |         |          |          |          |             |           |             |           |         |           |         |            |        |         | 100%            |              |                    |                               |                 |       | <b>Oikopleura sp</b><br>(n=2-train=5305      | 0.00       | 0.00        | 0.00          |       |
| Paracalamus spp. (n=1-train=1618)  Perdicted Values  Paracalamus spp. (n=1-train=1618 | -                               |          |                    |                   |       |         |          |          |          |             |           |             |           |         |           |         |            |        |         |                 |              |                    |                               | 100%            |       | Osteichthyes (larvae                         | 0.00       | 0.00        | 0.00          |       |
| Predicted Values    Tortanus spp. (n=0-train=203)  |                                 |          | Cir Co             | oy Co             | No.   | Oix,    | tos      | Car K    | 56 1/1   | , Co.       | Tep.      | Br. Por S.  | 4         | Co.     | Ec.       | Cu      | 06         | C.     | Cir.    |                 | Arix Oil     | Os & S.            | O <sub>6</sub> C <sub>1</sub> | lap Por         |       | Paracalanus sp                               | 0.00       | 0.00        | 0.00          |       |
| Predicted Values    Tortanus spp. (n=0-train=203)  |                                 | artis Sp | dhia!              | anoida .          | Choda | On/Pla  | na Sple  | Phanoido | Cudodia. | to to Strop | Dod       | Spr (1 det  | diaces to | ACTICO. | Opaga ino | der     | Poids Clia | Spr    | Sprodio | detogna collect | body illaria | pleur cichthin den | Temor apoda                   | hus sidocers an | Ws.   | Eurytemora spr                               | ) 0.00     |             |               |       |
| Predicted Values    Tortanus spp. (n=0-train=203)  |                                 | 7        | , , , ,            | nac)              | unid) | Paupli: |          | " (unio  | (ci. Pro | onus med    | 1150 (10) | ran analy   | land (    | AND IND | 8 % X     | DO MAKA | (In        | id) me | 7).     | (larvae)        | Son bro      | 3 Spp. 18 Con      | Spp. Spp. bra                 | achy.           | 20.   | Decapoda-brachyura (zoeae                    | ) 0.00     |             |               | 0.0   |
| Predicted Values    Tortanus spp. (n=0-train=203)  |                                 |          |                    |                   |       | 9       | <i>%</i> | ž        |          | 1/0         | 9         | "Linaci     | ツ         | 9       | Bent      | hic     | "Nae       | ,      | 30)     |                 | v. Achy      | Jura de            | /                             | ROP             |       | (n=1-train=628                               | 0.00       | 0.00        | 0.00          | 0.0   |
| Predicted Values    Tortanus spp. (n=0-train=203)  |                                 |          |                    |                   |       |         |          |          |          |             |           | (na)        |           |         |           | C       |            |        |         |                 |              | (larvae)           |                               |                 |       | (n=0-train=359                               | )          | _           | -             |       |
| (n=0-train=203) macro avg (corr) 0.33 0.40 0.32  |                                 |          |                    |                   |       |         |          |          |          |             |           |             | _         |         |           |         |            |        |         |                 |              |                    |                               | tra             | ining | (n=0-train=493                               | _          | _           | _             |       |
|  |                                 |          |                    |                   |       |         |          |          |          |             |           |             | Pre       | dicte   | d Valı    | ies     |            |        |         |                 |              |                    |                               | cla             | sses  | <b>Tortanus spp</b><br>(n=0-train=203        | )<br>      | _           | _             |       |
| weighted avg   |                                 |          |                    |                   |       |         |          |          |          |             |           |             |           |         |           |         |            |        |         |                 |              |                    |                               |                 |       | macro avg (corr                              | 0.33       | 0.40        | 0.32          |       |
|  |                                 |          |                    |                   |       |         |          |          |          |             |           |             |           |         |           |         |            |        |         |                 |              |                    |                               |                 |       | weighted av                                  | 0.74       | 0.65        | 0.67          |       |



Actual discarded Taxa

Relative Abundance of Top Taxonomic Instances per Sample





Relative Abundance of Top Taxonomic Instances per Sample (Redistributed)

