Use of SCN features: No

Actual Values

Gulf Selected Samples prediction using Gulf training set, Learning with all classes present in the selected samples, with extra training categories, With Calanoida, Cyclopoida, NO Zooplankton classes in learning set

Max learning objects: 5000 objects/class Strategy N° 9

Confusion Matrix In normant of Actual Value

Classification Report Matrix max 5000 learning objects per class

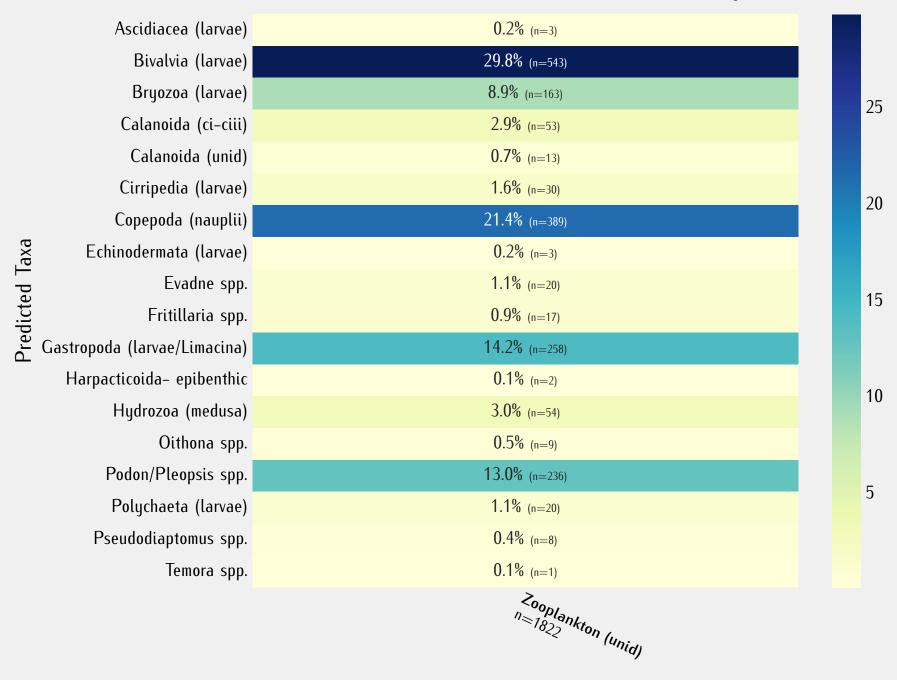
precision

recall

f1-score

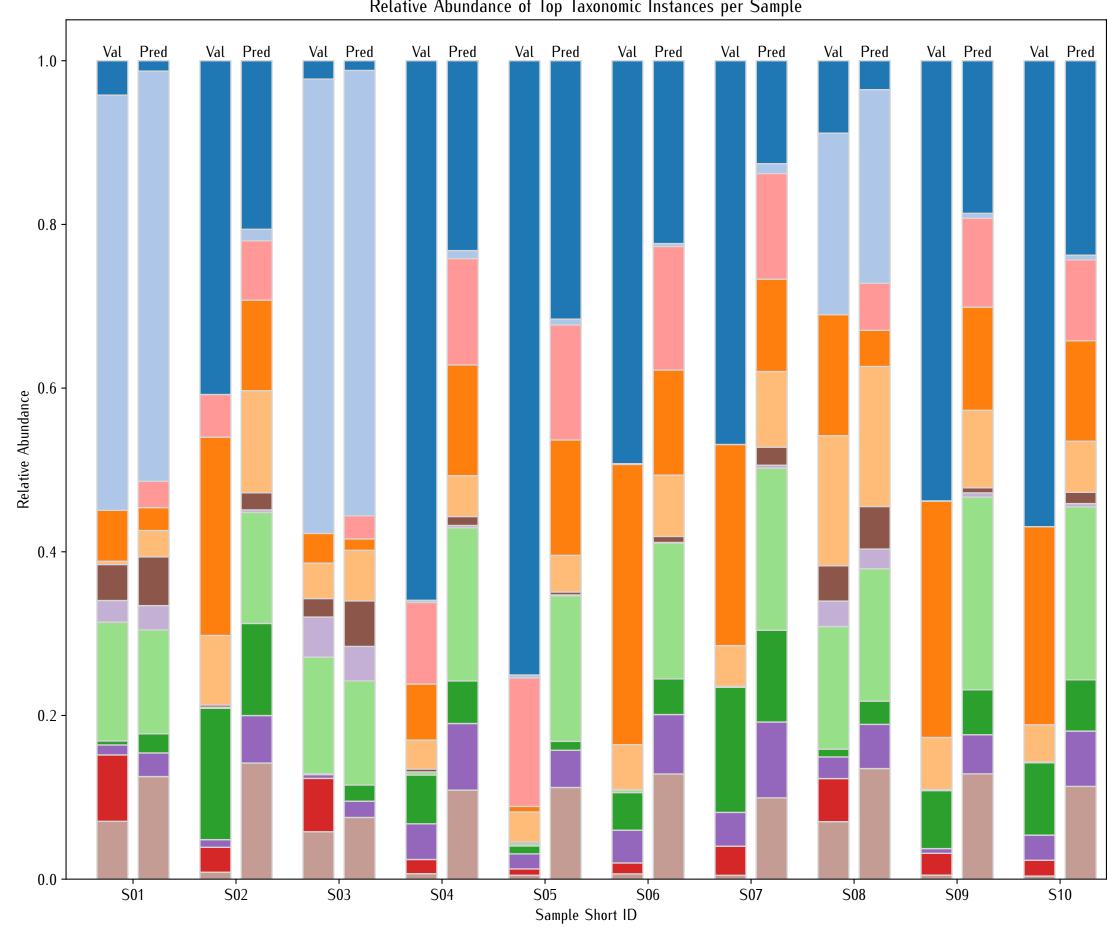
| | Confusion Matrix – In percent of Actual Value | | | | | | | | | | | | | max 5000 learning objects per class | | | | | | | | | | | | | | | |
|---------------------------------|---|-----------------|------------|---------|---------|--------------------------------|-----------------|------------|-----------------------------|----------|----------------------|---------|---------|-------------------------------------|--------|-----------------|----------|-------------------|----------------------------------|---------|------------------|----------|---------------------------------|------------------|--|-----------|--------|----------|-----|
| | | | | | | | | | | | | , | | | | | | | | | | | | | | precision | recall | f1-score | |
| Acartia spp. | 38% | 14% | <1% | <1% | 25% | 4% | 4% | <1% <19 | % 2% <1% | < | (1% < 1%) | 2% | <1% | <1% | 2% < | <1% | <1 | % <1% <1% | <1% | | <1% <1% | 6% | <1% <1% | <1% | Acartia spp. (n=18062-train=5000) | 0.98 | 0.38 | 0.55 | |
| Bivalvia (larvae) | | 93% <1% | <1% | <1% | <1% | <1% | <1% | <1% 4% | <1% < | <1% | (1% | | <1% | ; < | <1% | <1% | | <1% | | | | | | | Bivalvia (larvae) (n=7955-train=3574) | 0.07 | 0.93 | 0.95 | |
| Calanoida (unid) | 1% | <1% 18% | 4% | 1% | 15% | 33% | 13% | <1% <19 | % <1% 2% < | <1% < | (1% 1% < | <1% <1 | % <1% | <1% | 6% | 1% | <1 | % 2% | <1 | % | | <1% | | | Calanoida (unid) | 0.31 | 0.18 | 0.23 | |
| Copepoda (nauplii) | | 1% <1% | 92% | 1% | <1% | <1% | <1% | <19 | % 1% < | <1% | | <1 | % <1% | <u> </u> | <1% | 1% | | <1% | | | | | | | (n=7711-train=5000) Copepoda (nauplii) | 0.72 | 0.92 | 0.81 | |
| Podon/Pleopsis spp. | | 3% <1% | 12% | 67% | <1% | <1% | <1% | 2% 8% | <1% 4% < | <1% | <1% < | <1% | | | 2% | 1% | | <1% <1% | | | <1% | <1% | | | (n=2753-train=5000) Podon/Pleopsis spp. | | | | |
| Oithona spp. | <1% | 3% | <1% | <1% | 81% | 6% | 4% | <1% | | < | (1% 2% | <1 | 1% <1% | ; < | <1% < | <1% | | 1% | | | | | | <1% | (n=2715-train=3541) Oithona spp. | 0.04 | 0.67 | 0.75 | |
| Calanoida (ci-ciii) | | 17% | 3% | 1% | 12% | 39% | 10% | <1% <19 | % 2% | | 2% | <1 | % <1% | i | 9% | 1% | | <1% | | | | | | | (n=2572-train=4428) | 0.23 | 0.81 | 0.39 | 1 |
| Pseudodiaptomus spp. | 1% | 4% | 1% | | 18% | 10% | 57% | <19 | % <1% <1% | | 2% < | <1% | <1% | i | 3% < | <1% | <1 | % | | | | 2% | | | Calanoida (ci-ciii) (n=1348-train=1531) | 0.12 | 0.39 | 0.19 | |
| Hydrozoa (medusa) | <1% | 2% 2% | | 5% | 1% | | <1% | 72% 7% | <1% <1% < | <1% | < | (1% | | 2% | 5% < | <1% | | <1% | | | | <1% | | | Pseudodiaptomus spp. (n=1059-train=2113) | 0.23 | 0.57 | 0.33 | |
| Gastropoda (larvae/Limacina) | | 12% <1% | 7% | 10% | <1% | <1% | <1% | 2% 66% | <1% | | | | | < | <1% < | <1% | | | | | | | | | Hydrozoa (medusa) (n=671-train=3730) | 0.77 | 0.72 | 0.75 | |
| Temora spp. | 2% | 7% | 2% | | 4% | 7% | 17% | <19 | % 34% 1% | | | 7% | <1% | i | 10% < | <1% | <1 | % | | | <1% <1% | 4% | <1% | | Gastropoda (larvae/Limacina) | 0.38 | 0.66 | 0.49 | |
| Bryozoa (larvae) | | <1% | 20% | 16% | <1% | <1% | | 10% | 6 <1% 50% | 1% | <1% | | | | < | <1% | | <1% | | | | | | | (n=629-train=2871) Temora spp. | 0.10 | 0.34 | 0.23 | |
| Polychaeta (larvae) | <1% | 1% | 18% | 5% | <1% | 5% | 3% | 1% | <1% | 47% | | <1 | 1% <1% | <1% | 10% | 2% | | <1% 2% | <1 | % | <1% | | | | (n=308-train=2199) Bryozoa (larvae) | 0.25 | 0.50 | 0.34 | |
| Ascidiacea (larvae) | <1% | <1% | ó | | 3% | | 1% | | | 9 | 3% | | | | | | | <1% | 2% | ó | | | | | (n=247-train=973) Polychaeta (larvae) | | | | 0 |
| Harpacticoida- epibenthic | | 3% | 4% | | 31% | 13% | 10% | | 4% 2% | | 22% | | 3% | | 2% | | | <1% 4% | | | | 2% | | | (n=237-train=464) | 0.07 | 0.47 | 0.56 | |
| Centropages spp. | 30% | 2% | | | 32% | | 2% | | 14% | | 1 | 4% | | | | | 2% | ó | | | | 5% | | | Ascidiacea (larvae) (n=194-train=805) | 0.92 | 0.93 | 0.93 | |
| Echinodermata (larvae) | | | 8% | 8% | 3% | 19% | 3% | | | 3% | | 8% | % | | 30% | 14% | | 3% | | | | | | 3% | Harpacticoida- epibenthic (n=108-train=372) | 0.00 | 0.22 | 0.10 | |
| Cyclopoida (unid) | | 9% | 9% | | 4% | 4% | 4% | 4% | 13% | | 9% | | 35% | | 4% | | | | | | 49 | б | | | Centropages spp. (n=44-train=3461) | 0.01 | 0.14 | 0.03 | |
| Obelia spp. (medusa) | | 5% | | 5% | 14% | | | 10% | | | 5% | | | 33% | 29% | | | | | | | | | | Echinodermata (larvae) (n=37-train=118) | 0.06 | 0.08 | 0.07 | |
| Evadne spp. | | 6% | | | | | | 6% | 6% | | | | | | 75% | 6% | | | | | | | | | Cyclopoida (unid) (n=23-train=64) | 0.10 | 0.35 | 0.15 | C |
| Cirripedia (larvae) | | | 50% | | | 6% | | 6% | | | | 6% | 6 | | | 31% | | | | | | | | | Obelia spp. (medusa) | 0.10 | 0.33 | 0.15 | |
| Chaetognatha | | | | | | | | | | 2 | 3% | | | 8% | | 15% | | 31% | 23% | % | | | | | (n=21-train=952) Evadne spp. | 0.01 | 0.75 | 0.02 | |
| Cnidaria (larvae) | | | 29% | | | 43% | | 14% | б | | | | | | | 14% | | | | | | | | | (n=16-train=5000) Cirripedia (larvae) | 0.01 | | | |
| Pseudocalanus spp. | 29% | | | | | | 14% | | 43% | | 1 | 4% | | | | | | | | | | | | | (n=16-train=716) Chaetognatha | | 0.31 | 0.04 | |
| Decapoda-non brachyura (larvae) | | | | | | | | | | | | | | | | | | 50% | 25% | % | | | 25% | | (n=13-train=18) | 1.00 | 0.15 | 0.27 | |
| Fritillaria spp. | | | | | | | | | | | | | | | | | | 100% | | | | | | | Cnidaria (larvae) (n=7-train=20) | | 0.00 | 0.00 | C |
| Oikopleura spp. | | | | | | | | | | | | | | | | | | 100% | | | | | | | Pseudocalanus spp. (n=7-train=228) | 0.00 | 0.00 | 0.00 | |
| Monstrillidae | | | | | | | | | | | 5 | 0% | | | | | | | 50% | | | | | | Decapoda-non brachyura (larvae) (n=4-train=197) | | 0.50 | 0.27 | |
| Osteichthyes (larvae) | | | | | | | | | | | | | | | | | | | 100 | % | | | | | Fritillaria spp. (n=3-train=2701) | 0.01 | 1.00 | 0.02 | |
| Ostracoda | | | | | | | | 100 | % | | | | | | | | | | | | | | | | Oikopleura spp. | 0.00 | 0.00 | 0.00 | |
| Paracalanus spp. | | | | | | | | | | | | | | | | | | | | | | 100% | | | (n=2-train=37) Monstrillidae | 0.50 | 0.50 | 0.50 | C |
| Decapoda-brachyura (zoeae) | | | | | | | | | | | | | | | | | | | | | | | 100% | 5 | (n=2-train=27) Osteichthyes (larvae) | 0.00 | 1.00 | 0.17 | |
| Microsetella spp. | | | | | 100% | | | | | | | | | | | | | | | | | | | | (n=1-train=43) Ostracoda | | | | |
| Eurytemora spp. | | | | | | | | | 100% | | | | | | | | | | | | | | | | (n=1-train=1) Paracalanus spp. | 0.00 | 0.00 | 0.00 | |
| | Aco | Bis Co | y Con | Por | Oix | Ca/. | DS _R | Hy Co | c Pen Bri | Pol. | Sc. 1/2 | Cen So | The Gr | Obo | C/2 | City Cho | Chic As | Se De Arix | Oit No. Os | Co Osx | Par Der 1 | ic Cur | Cal (a) | Torx | / / 02) | 0.00 | 0.00 | 0.00 | |
| | 17/6 | Biological Call | Projek (4) | Doda . | n/p/ | Calan Ona Spp. Osis Spp. | Poida | Hydroxod (| Stropoda Sp. (medusa) Sp. | y Chal | Ascidiacea (lapacea) | ico. Da | noder | Obelia (Idrae) | Sp | Ciripedia (lar. | In daria | Seudocalanus Spp. | Oix Monstrillions of the Spp Spp | cichth, | Paracalanus Spp. | Tosetell | Calanus Sp. Spp. Spp. Spp. Spp. | idocera spp. | Decapoda-brachyura (zoeae) (n=1-train=277) | 0.00 | 0.00 | 0.00 | |
| | | λ, '¢ | 1200 (1) | nid) ne | Paupli. | 35.7% | (6 | Ciii | medis lan | drag | (landa) | Jan 6 | 2500 | 212 (4) | rid (| med. (lar | Van 1 | ande nus non | br. Sp. | do Se | Slan Spp | Orachu. | EDD & DD. | 5 200 NO | Microsetella spp. (n=1-train=4) | 0.00 | 0.00 | 0.00 | C |
| | | | | | V | 20 | | | 500 S. C. | i Mo- | *9) | 9/ 2 | ibenth. | AND OF | シ | 150) | 9 | % | achyur a | | de | Ura | Eo. | | Eurytemora spp. (n=1-train=1730) | 0.00 | 0.00 | 0.00 | · · |
| | | | | | | | | | | cinal | | | 10 | | | | | | "Man | | | | ede) | | Calanus spp. (n=0-train=109) | | _ | - | |
| | | | | | | | | | | | | | | | | | | | 40) | | | | | Extra | Labidocera spp. | _ | _ | _ | |
| | | | | | | | | | | | | | Predi | cted V | 'alue: | S | | | | | | | | training classes | (n=0-train=493) Tortanus spp. | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | (n=0-train=111) | - | 0.44 | 0.27 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | macro avg (corr) | | 0.41 | 0.27 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | weighted avg | 0.74 | 0.53 | 0.57 | |

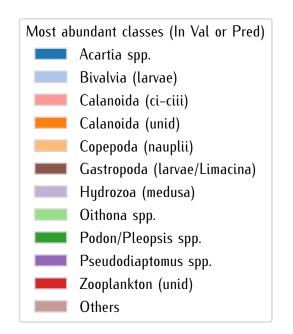
Predictions of discarded taxa from training



Actual discarded Taxa

Relative Abundance of Top Taxonomic Instances per Sample





Relative Abundance of Top Taxonomic Instances per Sample (Redistributed)

