Use of SCN features: No Max learning objects: 200 objects/class Strategy N° 2

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

| | | | | | | | | | | | | | Con | fusio | on M | atrix | (– II | n pe | rcen | t of | Actual | Valu | e | | | | | | | | | | | |
|---------------------------------|------|------------------|---------|----------|-----------|--|------------------|-------------|---------------|--------------|---------------|-------------------------|--|-------------------|-----------------------------|---------------------|-----------------------|----------|--------------------|---------------|-------------------|---------------------|---------------|--------------------------------|-----------------------|-----------------|-------------------|---------------------------|-----------|------------------------|-------------|--------------------|------|--------------------------|
| Acartia spp. | 19% | | <1% | <1% | 32% | 4% | 5% | <1% | <1% | 2% | <1% | | <1% | 5% | 1% | <1% | <1% | 2% | <1% | <1% | 3% | <19 | % <1 | % <1% | <1% < | <1% | <1% | | 1% | 1 | 4% < | <1% | | 4% |
| Bivalvia (larvae) | | 90% | 1% | <1% | <1% | <1% | ₆ <1% | 1% | 6% | | <1% | <1% | <1% | <1% | | <1% | | <1% | <1% | | < | 1% | <15 | % | | | | | < | (1% | | | | |
| Copepoda (nauplii) | | 3% | 83% | <1% | j | <1% | ₆ <1% | | <1% | | 6% | 3% | | <1% | | 3% | | | 1% | | | | <1 | % | | | | | < | (1% | | | | |
| Podon/Pleopsis spp. | | 6% | 14% | 46% | <1% | <1% | ₆ <1% | 2% | 12% | <1% | 10% | 3% | | <1% | | <1% | <1% | <1% | 4% | | < | 1% <19 | % | <1% | < | <1% | | < | (1% | < | 1% | | | <1% |
| Oithona spp. | <1% | | <1% | <1% | 71% | 6% | 5% | | | | <1% | <1% | <1% | 11% | | 2% | | 1% | <1% | <1% | <1% | | 1% | <1% | | | | | < | <1% < | 1% | | | <1% |
| Calanoida (ci-ciii) | <1% | | 3% | 1% | 10% | 37% | 11% | <1% | <1% | | 6% | <1% | | 12% | | 6% | | 8% | 3% | | < | 1% | 1% | <1% | | | | | | | | | | |
| Pseudodiaptomus spp. | <1% | | 1% | <1% | 16% | 15% | 36% | | <1% | <1% | 1% | | | 20% | <1% | 5% | | 2% | <1% | | <1% < | 1% | | | | | | < | 1% | 2 | 2% | | | <1% |
| Hydrozoa (medusa) | | 2% | | 4% | 1% | | <1% | 69% | 6% | <1% | 4% | | | <1% | | <1% | 4% | 6% | 1% | | <1% | | <1 | % | | | | <1% < | 1% | < | 1% < | <1% | | <1% |
| Gastropoda (larvae/Limacina) | | 16% | 9% | 8% | | <19 | б | 3% | 55% | | 3% | 2% | | <1% | | | | <1% | 1% | | <1% < | 1% | | | | | | <1% | | | | | | |
| Temora spp. | <1% | | 2% | <1% | 1% | 8% | 14% | | | 19% | 4% | | | 6% | 6% | 4% | | 7% | 2% | | 6% < | 1% <19 | % | | < | <1% < | <1% | 6 | 5% | 5 | 5% | 4% | | <1% |
| Bryozoa (larvae) | | 1% | 18% | 13% | <1% | <19 | б | 1% | 5% | | 57% | 2% | | | | | | | <1% | | | | <1 | % | | | | < | (1% | | | | | |
| Polychaeta (larvae) | <1% | <1% | 16% | 4% | <1% | 3% | <1% | | <1% | | 2% | 47% | | 2% | | 6% | <1% | 6% | 4% | | | <19 | % 2% | | < | <1% < | <1% | | | | | | | |
| Ascidiacea (larvae) | <1% | | | | 3% | | <1% | | | | <1% | | 90% | 2% | | | | | | <1% | | | <15 | % | | | 4% | | | | | | | |
| Harpacticoida- epibenthic | | | 3% | | 10% | 12% | 4% | | | <1% | 4% | | | 52% | | 2% | | <1% | <1% | | 3% | <19 | % <1 | % | | | | < | (1% 4 | 1% 2 | 2% | | | |
| Centropages spp. | 23% | | | | 39% | | 2% | | | 11% | | | | 2% | 11% | | | | | | 5% | | | | | | | 2 | 2% | 5 | 5% | | | |
| Echinodermata (larvae) | | | 5% | 3% | 3% | 11% | 3% | | | | 5% | | | | | 30% | | 16% | 19% | | | | 3% | | | | | | | | | | | 3% |
| Obelia spp. (medusa) | | | | 5% | 19% | 5% | | 10% | | | | | | | | | 19% | 33% | | | | | | | | | | | | 5 | 5% | | 5% | |
| Evadne spp. | | | | | | | | | | | 12% | | | | | 6% | | 62% | 6% | | | | | | | | | 6 | 6% | 6 | 5% | | | |
| Cirripedia (larvae) | | | 31% | | | | | | 6% | | | 12% | | | | 19% | | | 31% | | | | | | | | | | | | | | | |
| Chaetognatha | | | | | 8% | | | | | | | | 8% | | | | 8% | | | 46% | | | 8% | i | 8% | | 15% | | | | | | | |
| Pseudocalanus spp. | 29% | | | | | | | | | 14% | | | | | | | | | | | 43% | | | | | | | 1 | 4% | | | | | |
| Cnidaria (larvae) | | | 29% | | | 14% | | | | | | | | | | | | | 29% | | 29 |)% | | | | | | | | | | | | |
| Decapoda-non brachyura (larvae) | | | | | | | | | | | | | | | | | | | | | | 50% | б | | | | 25% | | | | | | 25% | |
| Fritillaria spp. | | | | | | | | | | | | | 33% | | | | | | | | | | 679 | 6 | | | | | | | | | | |
| Oikopleura spp. | | | | | | | | | | | | | | | | | | | | | | | 100 | % | | | | | | | | | | |
| Monstrillidae | | | | | | | | | | | | | | | | | | | | | | | | | 100% | | | | | | | | | |
| Decapoda-brachyura (zoeae) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 100% | |
| Osteichthyes (larvae) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 100% | |
| Ostracoda | | | | | | | | | 100% | | | | | | | | | | | | | | | | | | | | | | | | | |
| Paracalanus spp. | | | | | | | | | | | | | | | | | | | | | | | | | | | | 10 | 00% | | | | | |
| Microsetella spp. | | | | | | | 100% | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eurytemora spp. | | | | | | | | | | 100% | L | | | | | | | | | | | | | | | | | | | | | | | |
| | Acal | Bird Tio Stp. | Wie Par | Podd (I) | On Please | 5010 5010 5010 5010 505 5010 505 5010 | Snoida (| idodi di di | Loso (nis Sp. | Temoropoda (| Bryo. (lande) | Poly Coa Clar (inacina) | Ascillata la | Harpiacea (Janae) | Centi Acticolde Andel | Chin opages Sepibel | Obell Obell Sp. Which | Chadland | Cirty pp. (medusa) | . Charles (la | Pseudoca Praej | nidaria (lanus Spp. | Capoda, Anae) | itillaria Soli Non Soli Brachy | Monstri Pleura Sp. | Octapo Hidae | Ostell Oda bro | Ostracoli Chippes (la. | odjacala. | Microsett Phys Spp. | Suryten St. | Calanu Mora Sp. | Sp. | Portanus Spp. |
| | | | | | | | | | | | | | | | | Р | redic | cted ' | Value | es | | | | | *(| シ | | | | | | | | Extra traini class |

Classification Report Matrix

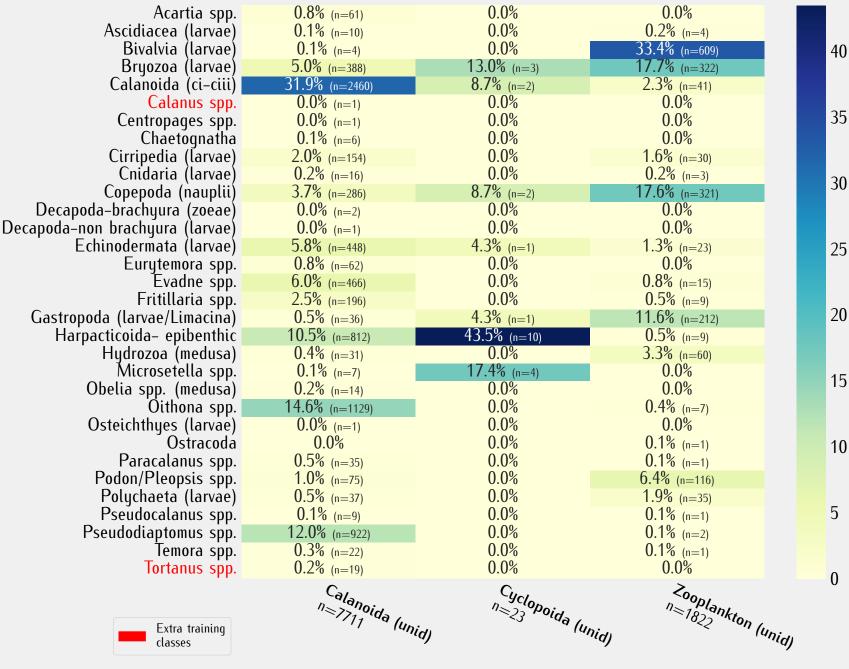
| max 200 learning objects per class | | | | | | | | | | | |
|---|-----------|--------|----------|-----|--|--|--|--|--|--|--|
| | precision | recall | f1-score | | | | | | | | |
| Acartia spp. (n=18062-train=200) | 0.99 | 0.19 | 0.31 | | | | | | | | |
| Bivalvia (larvae) (n=7955-train=200) | 0.95 | 0.90 | 0.93 | | | | | | | | |
| Copepoda (nauplii) (n=2753-train=200) | 0.76 | 0.83 | 0.79 | | | | | | | | |
| Podon/Pleopsis spp. (n=2715-train=200) | 0.88 | 0.46 | 0.61 | | | | | | | | |
| Oithona spp. (n=2572-train=200) | 0.23 | 0.71 | 0.34 | | | | | | | | |
| Calanoida (ci-ciii) (n=1348-train=200) | 0.29 | 0.37 | 0.32 | 1.0 | | | | | | | |
| Pseudodiaptomus spp. (n=1059-train=200) | 0.24 | 0.36 | 0.29 | 1.0 | | | | | | | |
| Hydrozoa (medusa) (n=671-train=200) | 0.72 | 0.69 | 0.70 | | | | | | | | |
| Gastropoda (larvae/Limacina) (n=629-train=200) | 0.29 | 0.55 | 0.38 | | | | | | | | |
| Temora spp. (n=308-train=200) | 0.15 | 0.19 | 0.17 | | | | | | | | |
| Bryozoa (larvae) (n=247-train=200) | 0.17 | 0.57 | 0.26 | 0.0 | | | | | | | |
| Polychaeta (larvae) (n=237-train=200) | 0.39 | 0.47 | 0.43 | 0.8 | | | | | | | |
| Ascidiacea (larvae) (n=194-train=200) | 0.63 | 0.90 | 0.74 | | | | | | | | |
| Harpacticoida- epibenthic (n=108-train=200) | 0.03 | 0.52 | 0.06 | | | | | | | | |
| Centropages spp. (n=44-train=200) | 0.02 | 0.11 | 0.03 | | | | | | | | |
| Echinodermata (larvae) (n=37-train=118) | 0.02 | 0.30 | 0.04 | | | | | | | | |
| Obelia spp. (medusa) (n=21-train=200) | 0.03 | 0.19 | 0.05 | 0.6 | | | | | | | |
| Evadne spp. (n=16-train=200) | 0.01 | 0.62 | 0.03 | | | | | | | | |
| Cirripedia (larvae) (n=16-train=200) | 0.02 | 0.31 | 0.03 | | | | | | | | |
| Chaetognatha (n=13-train=18) | 0.46 | 0.46 | 0.46 | | | | | | | | |
| Pseudocalanus spp. (n=7-train=200) | 0.00 | 0.43 | 0.01 | | | | | | | | |
| Cnidaria (larvae) (n=7-train=20) | 0.08 | 0.29 | 0.12 | 0.4 | | | | | | | |
| ecapoda-non brachyura (larvae) (n=4-train=197) | 0.06 | 0.50 | 0.10 | | | | | | | | |
| Fritillaria spp. (n=3-train=200) | 0.01 | 0.67 | 0.02 | | | | | | | | |
| Oikopleura spp. (n=2-train=37) | 0.00 | 0.00 | 0.00 | | | | | | | | |
| Monstrillidae (n=2-train=27) | 0.11 | 1.00 | 0.19 | | | | | | | | |
| Decapoda-brachyura (zoeae) (n=1-train=200) | 0.00 | 0.00 | 0.00 | 0.2 | | | | | | | |
| Osteichthyes (larvae) (n=1-train=43) | 0.00 | 0.00 | 0.00 | | | | | | | | |
| Ostracoda (n=1-train=1) | 0.00 | 0.00 | 0.00 | | | | | | | | |
| Paracalanus spp. (n=1-train=82) | 0.00 | 1.00 | 0.00 | | | | | | | | |
| Microsetella spp. (n=1-train=4) | 0.00 | 0.00 | 0.00 | | | | | | | | |
| Eurytemora spp. (n=1-train=200) | 0.00 | 0.00 | 0.00 | 0.0 | | | | | | | |
| Calanus spp. (n=0-train=109) | - | - | - | | | | | | | | |
| Labidocera spp. (n=0-train=200) | _ | _ | _ | | | | | | | | |
| Tortanus spp. (n=0-train=111) | - | - | - | | | | | | | | |
| macro avg (corr) | 0.24 | 0.42 | 0.23 | | | | | | | | |
| weighted avg | 0.82 | 0.47 | 0.50 | | | | | | | | |
| | procision | rocall | f1 ccara | | | | | | | | |

precision recall f1-score

Р

Predicted Taxa

Predictions of discarded taxa from training



Actual discarded Taxa

Relative Abundance of Top Taxonomic Instances per Sample

