ADDITIONS TO REFERENCE DATA BASES

**16S:**  
7/10/25 ; Taxonomy according to <https://explorer.natureserve.org>

Began at line 1763:

>Eukaryota;Chordata;Actinopteri;Carangiformes;Pleuronectidae;Myzopsetta;Myzopsetta proboscidea

GTAATCACTTGTCTTTTAAATGAAGACCTGTATGAATGGCATCACGAGGGCTTAGCTGTCTCCCATCTCCAGTCAATGAAATTGACCTCCCCGTGCAGAGGCGGGGATGATTACATAAGACGAGAAGACCCTATGGAGCTTTAGACCTAAAGTAAGTCACGTTTAATATGCTATGATAACAGCGAAAACTTAGTGATATTTACTGAAGTGTCTTTGGTTGGGGCGACCGCGGGGTAAAACACAACCCCCATGTGGACCGGGGATATTATCCCTAATACTCAGAGCCTCTACTCCAAGTAACAGAAATTCTGACTTTTCTGATCCGGTATAACCGATCAACGAACCGAGTTACCCTAGGGATAACAGCGCAATCC

>Eukaryota;Chordata;Actinopteri;Gadiformes;Gadidae;Eleginus;Eleginus gracilis

GCAATCACTTGTCTTTTAAATGAAGACCTGTATGAATGGCATCACGAGGGCTTAGCTGTCTCCCATCTCCAGTCAATGAAATTGACCTCCCCGTGCAGAGGCGGGGATGATTACATAAGACGAGAAGACCCTATGGAGCTTTAGACCTAAAGTAAGTCACGTTTAATATGCTATGATAACAGCGAAAACTTAGTGATATTTACTGAAGTGTCTTTGGTTGGGGCGACCGCGGGGTAAAACACAACCCCCATGTGGACCGGGGATATTATCCCTAATACTCAGAGCCTCTACTCCAAGTAACAGAAATTCTGACTTTTCTGATCCGGTATAACCGATCAACGAACCGAGTTACCCTAGGGATAACAGCGCAATCC

>Eukaryota;Chordata;Actinopteri;Carangiformes;Pleuronectidae;Myzopsetta;Myzopsetta proboscidea

GCAATCACTTGTCTTTTAAATGAAGACCTGTATGAATGGCATAACGAGGGCTTAACTGTCTCCTTCCCCTGGTCAATGAAATTGATCTCCCCGTGCAGAAGCGGGGATAAAACCATAAGACGAGAAGACCCTATGGAGCTTTAGACACACAGGTGGACCATGTCAAATACCCCCAGCTAAGGGCCTGAACTAAATGGGGCCTGCCTTGATGTCTTCGGTTGGGGCGACCATGGGGAATACAAAACCCCCACGTGGAAAGGGAGCACACCCCTAAGTTACTTCTTCTCCCGCAAGCCAGAGCAACAGCTCTAACAAGCAGAAATTCTGACCAAACTGATCCGGTAAAACCGATCAACGAACCAAGTTACCCTAGGGATAACAGCGCAATCC

>Eukaryota;Chordata;Actinopteri;Salmoniformes;Salmondiae;Coregonus;Coregonus laurettae

GTAATCACTTGTCTTTTAAATGAAGACCTGTATGAATGGCATCACGAGGGCTTAGCTGTCTCCTCTTCCAAGTCAGTGAAATTGATCTGCCCGTGCAGAAGCGGGCATAAGTACATAAGACGAGAAGACCCTATGGAGCTTTAGACACCAGGCAGATCACGTCAAGTAACCTTGGGTTAACAAGTAAAAACGCAGTGACCCCTAGCCCATATGTCTTTGGTTGGGGCGACCGCGGGGGAAAACAAAGCCCCCATGTGGACTGGGGGCACTGCCCCCACAGCCGAGAGCTACAGCTCTAAGCACCAGAATTTCTGACCAGAAATGATCCGGCGAACGCCGATCAACGGACCGAGTTACCCTAGGGATAACAGCGCAATCC

>Eukaryota;Chordata;Actinopteri;Pleuronectiformes;Pleuronectidae;Limanda;Limanda aspera

GTAATCACTTGTCTTTTAAATGAAGACCTGTATGAATGGCATAACGAGGGCTTAACTGTCTCCTTCCCCCGGTCAATGAAATTGATCTCCCCGTGCAGAAGCGGGGATGAAACCATAAGACGAGAAGACCCTATGGAGCTTTAGACACACAGGTGGCCCATGTCAAATAACCCCCGCTAAGGGCCTGAACTAAGTGGAACCTGCCTTGATGTCTTCGGTTGGGGCGACCATGGGGAATACAAAACCCCCACGTGGAAGGGGAGCACACCCCTAAGTTACTTCTTCTCCCGCAAGCCAGAGCAACGGCTCTAACCAGCAGAAATTCTGACCAAAATGATCCGGTAATACCGATCAACGAACCAAGTTACCCTAGGGATAACAGCGCAATCC

>Eukaryota;Chordata;Actinopteri;Perciformes;Stichaeidae;Acantholumpenus;Acantholumpenus mackayi

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>Eukaryota;Chordata;Actinopteri;Esociformes;Esocidae;Esox;Exos sp.

GTAATCACTTGTCTTTTAAATGAAGACCTGTATGAATGGCATCACGAGGGCTTAGCTGTCTCCTCTTTCAAGTCAATGAAATTGATCTGCCCGTGCAGAAGCGGACATAAGAACATAAGACGAGAAGACCCTATGGAGCTTTAGACACCCGGCAGACCCTGTTAAGTAGCTGAACTATCAGATTAAAACAAAGCGGCCCCTGGCCTACATGTCTTCGGTTGGGGCGACCACGGGGGAAAACAAAGCCCCCACGAGGATTAAGGAAAACCTCCTTATAACCACGAGCGACAGCTCTAAGTCTCAGAACTTCTGACCAAAAAGATCCGACACCAGTCGATCAACGGACCAAGTTACCCTAGGGATAACAGCGCAATCC

>Eukaryota;Chordata;Actinopteri;Gadiformes;Gadidae;Gadus;Gadus chalcogrammus

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>Eukaryota;Chordata;Actinopteri;Uranoscopiformes;Ammodytidae;Ammodytes;Ammodytes hexapterus

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>Eukaryota;Chordata;Mammalia;Artiodactyla;Monodontidae;Delphinapterus;Delphinapterus leucas

GTAATCACTTGTCTTTTAAATGAATGGCCACACGAGGGTTTTACTGTCTCTTACTTCTAATCAGTGAAATTGACCTCCCCGTGAAGAGGCGGGGATAATACAATAAGACGAGAAGACCCTATGGAGCTTTAATTAATCAACCCAAAAAACACAAAACAGCACCACCAAGGGATAACAAAATTTTACATGGGTTGACAATTTCGGTTGGGGTGACCTCGGAGTACAAAAAACCCTCCGAGTGATTAAAACCTAGGCCTACTGGCCAAAGTGTAATATCACTTATTGATCCAAATTCTTGATCAACGGAACAAGTTACCCTAGGGATAACAGCGCAATCC

**12S**

7/10/25; Taxonomy according to <https://explorer.natureserve.org>

Began at line 27120

>Eukaryota;Chordata;Actinopteri;Gadiformes;Gadidae:Boreogadus;Boreogadus saida

GCCGGTAAAACTCGTGCCAGCCACCGCGGTTATACGAGAGGCCCAAATTGATGAAAAACGGCGTAAAGCGTGGTTAAGAAAAGAGAGAAAATACGGCCGAACAGCTTCAAAGCAGTTATACGCATCCGAAGTCACGAAGAACAATCACGAAAGTTGCCCTAAAACCTCTGATTCCACGAAAGCCATAAAACAAACTGGGATTAGATACCCCACTATG

>Eukaryota;Chordata;Actinopteri;Salmoniformes;Salmonidae;Onchorynchus;Oncorhynchus kisutch

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>Eukaryota;Chordata;Actinopteri;Perciformes;Sticheidae;Stichaeus;Stichaeus punctatus

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>Eukaryota;Chordata;Actinopteri;Perciformes;Sticheidae;Acantholumpenus;Acantholumpenus mackayi

GCCGGTAAAACTCGTGCCAGCCACCGCGGTTATACGAGAGGCCCAAGTTGACAGACATCGGCGTAAAGGGTGGTTAAGTTAAATTATAAACTAAAGCCGAACATCCTCAAGGCTGTTATACGCACCCGAAGATAAGAAGTTCAACCACGAAGGTGGCTTTATTTAGTCTGAACCCACGAAAGCTACGGCACAAACTGGGATTAGATACCCCACTATG

>Eukaryota;Chordata;Actinopteri;Gadiformes;Gadidae;Gadus;Gadus chalcogrammus

GCCGGTAAAACTCGTGCCAGCCACCGCGGTTATACGAGAGGCCCAAATTGATGAAAAACGGCGTAAAGCGTGGTTAAGAAAAAGAGAGAAAATATGGCCGAACAGCTTCAAAGCAGTTATACGCATCCGAAGTCACGAAGAACAATCACGAAAGTTGCCCTAAAACCTCCGATTCCACGAAAGCCATAAAACAAACTGGGATTAGATACCCCACTATG

>Eukaryota;Chordata;Actinopteri;Salmoniformes;Salmonidae;Onchorynchus;Oncorhynchus keta

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>Eukaryota;Chordata;Actinopteri;Salmoniformes;Salmoniae;Coregonus;Coregonus nasus

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>Eukaryota;Chordata;Actinopteri;Perciformes;Agonidae;Brachyopsis;Brachyopsis segaliensis

GCCGGTAAAACTCGTGCCAGCCACCGCGGTTATACGAGAGGCCCAAGTTGATAGACACCGGCGTAAAGCGTGGTTAAGTTAAAACTCATACTAAAGTCAAACATCTTCAAGACTGTTATACGTAACCGAAGACAGGAAGTTCAACCACGAAAGTGACTTTACTTGATCTGACCCCACGAAAGCTAAGGAACAAACTGGGATTAGATACCCCACTATG

>Eukaryota;Chordata;Actinopteri;Gadiformes;Gadidae:Boreogadus;Boreogadus saida

GCCGGTAAAACTCGTGCCAGCCACCGCGGTTATACGAGAGGCCCAAATTGATGAAAAACGGCGTAAAGCGTGGTTAAGAAAAGAGAGAAAATATGGCCGAACAGCTTCAAAGCAGTTATACGCATCCGAAGTCACGAAGAACAATCACGAAAGTTGCCCTAAAACCTCTGATTCCACGAAAGCCATAAAACAAACTGGGATTAGATACCCCACTATG

>Eukaryota;Chordata;Actinopteri;Salmoniformes;Salmonidae;Onchorynchus;Oncorhynchus gorbuscha

GCCGGTAAAACTCGTGCCAGCCACCGCGGTTATACGAGAGGCCCTAGTTGATAACTACCGGCGTAAAGAGTGGTTATGGAAAAATATTTAATAAAGCCGAACACCCCCTCAGCCGTCATACGCATCTGGGAGCACGAAGACCTACTGCGAAAGCAGCTTTAATTATGCCTGACCCCACGACAGCTAAGAAACAAACTGGGATTAGATACCCCACTATG

>Eukaryota;Chordata;Actinopteri;Perciformes;Zoarcidae;Gymnelus;Gymnelus viridis

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>Eukaryota;Chordata;Actinopteri;Perciformes;Agonidae;Aspidophoroides;Aspidophoroides monopterygius

GCCGGTAAAACTCGTGCCAGCCACCGCGGTTATACGAGAGGCTCAAGTTGATAGCCGCCGGCGTAAAGCGTGGTTAAGTTAAAAGTCATACTAAAGCCAAACATCTTCAAGACTGTTATACGTAGCCGAAGACAGGAAGTTCAACCACGAAAGTGGCTTTATAGATCTGACCCCACGAAAGCTAAGGAACAAACTGGGATTAGATACCCCACTATG

>Eukaryota;Chordata;Mammalia;Primates;Hominidae;Homo;Homo sapiens

GCCGGTAAAACTCGTGCCAGCCACCGCGGTCACACGATTAACCCAAGTCAATAGAAGCCGGCGTAAAGAGTGTTTTAGATCACCCCCTCCCCAATAAAGCTAAAACTCACCTGAGTTGTAAAAAACTCCAGTTGACACAAAATAGACTACGAAAGTGGCTTTAACATATCTGAACACACAATAGCTAAGACCCAAACTGGGATTAGATACCCCACTATG

>Eukaryota;Chordata;Actinopteri;Salmoniformes;Salmonidae;Coregonus;Coregonus laurettae

GCCGGTAAAACTCGTGCCAGCCACCGCGGTTATACGAGAGGCCCTAGTTGATAATTACCGGCGTAAAGAGTGGTTAGGAATTATATTTAATAAAGCCGAACACCCCCTTGGCTGTCATACGCACCTGGGGGCACGAAGCCCCACTGCGAAAGCAGCTTTAATCAACACCTGAACCCACGACAGCTATGACACAAACTGGGATTAGATACCCCACTATG

>Eukaryota;Chordata;Actinopteri;Gadiformes;Gadidae;Gadus;Gadus morhua

GCCGGTAAAACTCGTGCCAGCCACCGCGGTTATACGAGAGGCCCAAATTGATGAAAAACGGCGTAAAGCGTGGTTAAGAAAAAAGAGAAAATATGGCCGAACAGCTTCAAAGCAGTTATACGCATCCGAAGTCACGAAGAACAATCACGAAAGTTGCCCTAAAACCTCCGATTCCACGAAAGCCATAAAACAAACTGGGATTAGATACCCCACTATG

>Eukaryota;Chordata;Actinopteri;Perciformes;Liparidae;Liparis;Liparis miostomus

GCCGGTAAAACTCGTGCCAGCCACCGCGGTTATACGAGAGGCCCAAGTTGAAAGACACCGGCGTAAAGCGTGGTTAAGTTAAATTTAAGCTAAAGTTAAACATCTTCAAGACTGTTATACGTATCCGAAGATAGGAACCTCAATTACGAAAGTAACTTTACACAAGCTGAACCCACGAAAGCTATAGCACAAACTGGGATTAGATACCCCACTATG

>Eukaryota;Chordata;Actinopteri;Myctophiformes;Mycophidae;Stenobranchius;Stenobrachius leucopsarus

GCCGGTAAAACTCGTGCCAGCCACCGCGGTCATACGAGTGTTAGCCCAAGCAGATGGTCAACGGCGTAAAGAGTGGTTAGGGAACCCTGAAACTAAAGCTGAACGCCCGCAGGGCCGTTATACGCATCCGACAGCATGAAACCCCACCACGAAAGTGGCTTTAACCTGACCCGAACCCACGACAGCTAAGACACAAACTGGGATTAGATACCCCACTATG

>Eukaryota;Chordata;Actinopteri;Perciformes;Sebastidae;Sebastes;Sebastes entomelas

GCCGGTAAAACTCGTGCCAGCCACCGCGGCTATACGAGAGACCCAAGTTGATACCATTCGGCGTAAAGAGTGGTTATGGAAAATAAAGACTAAAGCCGCACACCTTCAAAGCTGTTATACGCATCCGAAGGCTAGAAGACCAACCACGAAGGTAGCTTTACAACCCCTGACCCCACGAAAGCTCCGGCACAAACTGGGATTAGATACCCCACTATG