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DNA barcoding grey mullets

Jean-Dominique Durand · Nicolas Hubert · Kang-Ning Shen · Philippe Borsa¶

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Abstract Despite the ecological and commercial importance of grey mullets (fish family Mugilidae), their taxonomy and systematics are still much debated. Reasons for this are the low level of morphometric variability and the relatively poor phylogenetic information borne by the morpho-anatomical characters used thus far in diagnosing species. Here, we evaluate the potential of DNA barcoding to accurately delineate species and assign unknown specimens to known taxa in the family Mugilidae. Our reference sample consists of 257 individuals from 91 lineages characterized by their nucleotide sequences at the *COI*, cytochrome *b*, and 16S rRNA loci. These lineages correspond to 55 species according to the current taxonomy, and 36 presumed cryptic species. All known and presumed cryptic species within the '*Mugil cephalus*' (*n* = 15) and '*M. curema*'(*n* = 6) species complexes, as well as within genera *Chelon* (*n* = 10), *Crenimugil* (*n* = 6), *Osteomugil* (*n* = 6), and *Planiliza* (*n* = 18) were successfully recovered as distinct lineages by *COI* gene sequences (598 bp), demonstrating the utility of this marker to delineate species in the family Mugilidae. Inconsistencies in the labeling of sequences deposited in GenBank were ascribed to species misidentification. A proportion of these misidentifications occurred in the course of dedicated barcoding surveys, further emphasizing the need for an accurate and exhaustive reference barcoding database for Mugilidae.

Keywords Mugilidae · *COI* · Identification to species

Introduction

In the preamble to the eleventh volume of his and G. Cuvier's *Histoire naturelle des poissons*, Valenciennes (1836) confessed that their treatment of the Mugilidae had been a particularly laborious one: "*La première famille dont nous traçons l'histoire dans ce volume est une de celles qui nous ont donné le plus de peine, à M. Cuvier et à moi*". Leading taxonomists of the Mugilidae or grey mullets have emphasized the remarkably uniform appearance of fishes in this family, making straightforward diagnoses almost impossible for many species (Schultz 1946; Thomson 1966; Thomson 1997; Harrison and Senou 1999). As a possible consequence of these difficulties, grey mullets are often under-represented in field guides and other books on coastal fishes (e.g. Randall 1992; Shao et al. 1992; Allen 1997; Laboute and Grandperrin 2000; Randall 2005). Also, no morphology-based identification key is available for larvae and juveniles of the family Mugilidae < 60 mm standard length (Thomson 1997; Leis and Carson-Ewart 2001) although some keys to Mugilidae species from particular areas have been proposed (van der Elst and Wallace 1976; Serventi et al. 1996).

Catalogues that identify commercial fishes from tissue samples using genetic markers or mass spectrophotometry techniques ignore a proportion of species in the Mugilidae, if not the family as a whole (e.g., Durand et al. 1985; Mazzeo et al. 2008). Ecological surveys and ichthyological inventories frequently fail to identify grey mullets to species (e.g. Chabanet and Durville 2005; Veiga et al. 2010; Franco et al.2012; Pogoreutz et al. 2012) or even to mention them (e.g., Mellin et al. 2016). Only 16 grey mullet species among a total of 51 listed by the Food and Agricultural Organization of the United Nations possess fishery statistics (http://www.fao.org/fishery/collection/asfis/en).

Yet, the accurate identification of grey mullets is fundamental to marine biodiversity research, as many species in this family are important from the point of view of the functional ecology of coastal ecosystems, including estuaries, mangroves, reefs, and lagoons (Blaber 1976; Blaber 2000; Lebreton et al. 2011; Chang and Iikuza 2012; Whitfield et al. 2012). Grey mullets are a valuable food resource and source of income for local communities in many tropical and temperate countries (Harrison and Senou 2002; Bernardon and Vall 2004;Guillemot et al. 2009; Jollit et al. 2010; Crosetti and Blaber 2016) and several species are of major importance to fisheries (Harrison and Senou 2002; Bacheler et al. 2005; Whitfield et al. 2012). Some mugilid species are also produced through intensive aquaculture (Harrison and Senou 2002; Gautier and Hussenot 2005; Whitfield et al.2012; Crosetti and Blaber 2016).

Molecular phylogenetics has demonstrated the occurrence of distinct and sometimes paraphyletic deep mitochondrial lineages in a proportion of the mugilid species, indicating a proportion of putative

cryptic species (Shen et al. 2011; Durand et al. 2012b, McMahan et al.2013, Durand and Borsa 2015). As a consequence, the species richness of the family Mugilidae is thought to be currently underestimated and possibly largely so (Durand and Borsa 2015). DNA barcoding is expected to offer a shortcut to accurately identify grey mullets but also to delineate species and help flag presumed cryptic species. However, a first necessary step is to test whether the nucleotide sequence of the *COI* gene fragment used as the universal barcode in fishes (Ward et al. 2009) is powerful enough to distinguish both known species and presumed cryptic species in the Mugilidae. The aim of this paper is to assemble a comprehensive DNA-barcode library for grey mullets and to evaluate its effectiveness for identification to species.

Materials and Methods

Nomenclature

In this paper, genus nomenclature accords with the revisions of Durand et al. (2012a) and Xia et al. (2016). Nomenclature at the species level follows Durand and Borsa (2015).

Choice of a reference database

Durand et al.'s (2012a, b) trees based on concatenated partial *16S rRNA*, *COI* and cytochrome *b* (*cytb*) gene sequences (3,885 bp long in total) of 257 reference specimens including 120 vouchers deposited in museum collections were used for the delineation of species and presumptive species (Durand and Borsa 2015). This is the reference database now used to assess the quality of DNAbarcoding in Mugilidae.

Genetic marker and evolutionary model

The marker here chosen as DNA barcode in Mugilidae was a 598-bp fragment of the *COI* gene comprised between nucleotide sites homologous to sites nos. 5624 and 6221 of the mitochondrial genome of *Mugil* sp. I (GenBank KM368340). The model of molecular evolution chosen for reconstructing the phylogeny of haplotypes was the Kimura 2-parameter (K2P) model (Kimura 1980). The algorithm used for constructing DNA-barcode trees was the Neighbor-Joining (NJ) algorithm (Saitou and Nei 1987), based on K2P divergences. We are aware that the K2P model is not necessarily the most appropriate model to estimate nucleotide divergence between closely related *COI* gene sequences (Srivathsan and Meier 2012). Also, depending on the extent of sequence divergence and the length of the marker, the distance-based NJ algorithm may not always be as accurate as the character-based maximum-likelihood algorithm (Tateno et al. 1994). However, NJ trees of K2P distances have been the standard in barcoding surveys since the beginning of the *COI* barcoding initiative (Hebert et al. 2003). The first objective of the present work being to assess the utility and quality of standard *COI* barcodes in identifying grey mullets to species, standard data analysis had to be employed. Thus, for the purpose of the present work, we found no particular reason to switch to another model of molecular evolution and to another method of tree reconstruction.

Typology of genetic surveys of Mugilidae

Partial *COI* gene sequences deposited in GenBank and labeled as Mugilidae were downloaded on 21 February 2015. These were added to the *COI* gene sequence dataset of Durand et al. (2012a,b) with two

objectives: (1) to eventually detect lineages that had not been sampled previously; (2) to eventually detect labelling errors of in the GenBank database.

Sequences from GenBank that did not include the entirety of a core segment 538-bp long, comprised between nucleotide sites nos. 5637 and 6173 in the mitochondrial genome of *Mugil* sp. I here used as a sequence of reference for the family (GenBank KM368340) were discarded. Sequences GenBank JF952795 and JF952796, labeled "*Mugil cephalus*" were also discarded because they clustered with the carangid *Seriola* sp. (see below). A total set of 829 partial *COI*-gene sequences, including the 261 sequences of Durand et al. (2012a, b) and 568 other sequences from GenBank, was used to produce an NJ tree of Mugilidae thus based on a segment 538-bp long.

Published genetic surveys of Mugilidae whose *COI* gene sequences were utilized in this paper (Supplementary Table S1) were categorized as "barcoding", "phylogeny" or "phylogeography" depending on their aims and content. For sequences from unpublished surveys, the category was inferred from the information provided in the GenBank record. "Barcoding" surveys were those aimed at providing *COI* gene sequences for the sole purpose of identifying species. "Phylogeny" surveys were concerned with the phylogeny or the molecular systematics at the supra-specific level. "Phylogeography" surveys were concerned with the genetic relationships among populations within a species or within closely related species of the same genus.

Results

Partial COI gene sequences as barcodes in grey mullets

The NJ tree of the *COI* barcodes of 54 individuals of the *Mugil cephalus* species complex (Fig. 1a) had the same basic topology as, and recovered all 15 lineages of Durand and Borsa's (2015) ML tree based on the concatenated partial *COI*, *cytb* and *16S rRNA* gene sequences (Supplementary Fig. S1a). This included *M. cephalus*, *M. liza*, and 13 other lineages denominated *Mugil* spp. A-L, Q (Durand and Borsa 2015). Bootstrap support to a lineage was ≥ 95% except for *Mugil* sp. H (72%) and *Mugil* sp. I (60%) (Fig. 1a).

The NJ tree of the *COI* barcodes of 38 individuals of the *M. curema* species complex (Fig. 1b) had almost the same topology as, and recovered all 6 lineages of Durand and Borsa's (2015) ML tree based on the concatenated partial *COI*, *cytb* and *16S rRNA* gene sequences (Supplementary Fig. S1b). Bootstrap support to a lineage was 98%-99% (Fig. 1b).

The NJ tree of the *COI* barcodes of 52 individuals of the genera *Crenimugil* and *Osteomugil* (Fig. 2a) had almost the same topology as Durand et al.'s (2012b) ML tree based on the concatenated partial *COI*, *cytb* and *16S rRNA* gene sequences (Supplementary Fig. S2a). All 12 lineages identified by Durand and Borsa (2015) were recovered in the *COI* tree. This included *C. buchanani*, *C. crenilabis*, three lineages under *C. seheli* designated as *Crenimugil* spp. A-C, an unidentified *Crenimugil* sp. sampled in Fiji and Taiwan (*Crenimugil* sp. D), three lineages under *O. cunnesius* referred to as *Osteomugil* spp. A-C, *O. engeli*, *O. perusii*, and *O. robustus*. Bootstrap support to a lineage was 97%-100% (Fig. 2a).

Likewise, all of the 28 lineages previously scored in the genera *Chelon* and *Planiliza* (Supplementary Fig. S2b) were recovered in the NJ tree of the *COI* barcodes (Fig. 2b), with bootstrap support to a lineage varying from 89% to 100%.

Distribution of pairwise distances

The distribution of pairwise nucleotide distances based on the partial *COI* gene sequence dataset used for constructing the NJ tree of the *M. cephalus* species complex (Fig. 3a) showed three modal classes, at 0%-

0.5%, 1.5%-2.0%, and 3.5%-4%. Within-species (including presumed cryptic species) pairwise distances were all < 1%, more than 90% of which were < 0.5%. Inter-species distances ranged from 0.5% to 6.6%. Thus, the first peak of the distribution corresponded mostly to intra-lineage distances whereas distances > 1% exclusively concerned comparisons of haplotypes belonging to different lineages. The distribution of pairwise nucleotide distances in the *M. curema* species complex featured two non-overlapping modes peaking at 0%-0.5% (range: 0%-2.3%) and at 5.5%-6.0% (range: 3.1%-9.2%), respectively (Fig. 3b). The first mode exclusively consisted of within-lineage pairwise distances, whereas the second mode included all inter-lineage pairwise distances. In the genera *Osteomugil* and *Crenimugil*, pairwise nucleotide distances within a lineage were all < 3.5% whereas inter-lineage nucleotide distances were all > 3.5% (Fig. 3c). In the genera *Chelon* and *Planiliza*, pairwise nucleotide distances within a lineage were all < 3% whereas inter-lineage nucleotide distances were all > 4% (Fig. 3d).

New or undetermined mugilid lineages found by mining GenBank

The inclusion of all *COI* gene sequences available from GenBank (Supplementary Figs. S3-S9) uncovered 12 new mugilid lineages, i.e. lineages that were not present in our reference database (Durand et al. 2012a, b; Durand and Borsa 2015).

Haplotypes labeled "*Agonostomus monticola*" (GenBank JQ935845-JQ935849; Mejia et al. 2012) clustered as a new lineage sister to two other *Dajaus* spp. lineages (*Dajaus monticola*, *Dajaus* sp. B). These haplotypes likely belong to another yet undetermined species in the genus *Dajaus* (Supplementary Fig. S3).

A new *Mugil* sp. lineage was represented by three haplotypes from Saõ Paulo, Brazil (GenBank JQ365444-JQ365446; Ribeiro et al. 2012) and three from Belém, Brazil (GenBank JX185216-JX185218; Siccha-Ramirez et al. 2014); all six sequences were labeled "*Mugil hospes*". This lineage was sister to *Mugil* sp. R (Supplementary Fig. S3), of which it was separated by 7.5% nucleotide divergence at the *COI* locus, and corresponds to the recently resurrected *Mugil brevirostris* (Menezes et al. 2015). Two new *Mugil* sp. lineages labeled "*Mugil cephalus*" in GenBank, represented each by 5 to 6 individuals sampled in Turkey (GenBank KC500933-KC500946; Keskin and Atar 2013) were sisters to *M. cephalus* (Supplementary Fig. S4) and were separated from it by 1.1-1.2% nucleotide divergence at the *COI* locus. A haplotype originally labeled "*Mugil curema*" (GenBank DQ441603; Heras et al. 2006) was placed externally to the haplogroup representing the *M. curema* species complex as defined by Durand et al. (2012b) (Supplementary Fig. S3). This haplotype likely belongs to another yet undetermined or unsampled species in the genus *Mugil*. Also in the *M. curema* species complex (Supplementary Fig. S5), the recently-described *M. margaritae* (Menezes et al. 2015) corresponded to lineage *Mugil* sp. N of Durand and Borsa (2015). Last, two specimens labeled "*Mugil cephalus*" (GenBank JF952795, JF952796) placed at an odd position on a preliminary version of the NJ tree (not shown) turned out to be likely *Seriola* sp. as inferred from their 99%-100% homology with sequences of *S. lalandi* (GenBank EU752208) and *S. quinqueradiata* (GenBank EU752208, HQ641665-HQ641667, KF202527).

Haplotypes originally labeled "*Liza tade*" (GenBank EU014262-EU01426 and JQ045776; Lakra et al. 2011, Ashiq Ur Rahman et al. 2013) were placed within the *Osteomugil* clade, as a new lineage distinct from all other known *Osteomugil* spp. lineages. This new lineage likely belongs to another yet undetermined or unsampled species in the genus *Osteomugil* (Supplementary Fig. S6). A haplotype labeled "*Valamugil speigleri*" (GenBank JQ045778; Ashiq Ur Rahman et al. 2013) came out as the sister lineage to *O. cunnesius* (Supplementary Fig. S6) and was separated from the latter by 4.1% nucleotide distance. This haplotype may effectively represent *O. speigleri*, which was absent from our reference database (Durand and Borsa 2015) or it may belong to another yet undetermined or unsampled species in the genus *Osteomugil*. A haplotype labeled "*Sicamugil cascasia*" (GenBank JX260972; Rathod et al. 2015), turned out to be placed

within the *Osteomugil* clade as a lineage distinct from all known *Osteomugil* spp. lineages (Supplementary Fig. S6). With a nucleotide divergence of 13.8% from its closest relative, *Osteomugil* sp. B, this haplotype likely belongs to an undetermined or unsampled species in the genus *Osteomugil*.

No new lineage belonging to genera *Crenimugil* or *Chelon* was recovered (Supplementary Figs. S7, S8). The haplotype of an individual labeled"*Chelon planiceps*" from Vellar, Bay of Bengal (GenBank JQ045784) was placed outside Durand and Borsa's (2015) *Planiliza* sp. F and *Planiliza* sp. I [both formerly under *P. tade*, senior synonym of *P. planiceps* (Eschmeyer et al. 2016)] and all the other *Planiliza* spp. lineages sampled by Durand et al. (2012b) (Supplementary Fig. S9). This haplotype represents an undetermined lineage (*Planiliza* sp. of Supplementary Fig. S9) sister to *P. subviridis*. The haplotypes of two individuals labeled "*Sicamugil cascasia*" (GenBank JX983495, JX983496; Khedkar et al. 2014) were placed in the *Planiliza* clade, as a new lineage distinct from all other known *Planiliza* spp. lineages (Supplementary Fig. S9). This lineage represents another undetermined *Planiliza* sp. (Supplementary Fig. S9) closely related to *P. subviridis* and to the *Planiliza* sp. lineage represented by GenBank JQ045784 (see above). The haplotype of an individual from an undetermined species assigned to genus *Liza* (GenBank KC970393) formed a distinct lineage within *Planiliza* spp., which had not been previously sampled by us (Supplementary Fig. S9). Therefore, we assigned it to another undetermined *Planiliza* species. The haplotype of an individual labeled "*Liza melinoptera*" from the Philippines (GenBank KJ202170) formed a lineage sister to Durand and Borsa's (2015) *Planiliza* sp. G. This lineage likely represents a species distinct from *Planiliza* sp. G because of the substantial nucleotide divergence (4.5%) with the latter.

Assessing the accuracy of published data

Among the 572 sequences retrieved from GenBank, 358 were linked to surveys assigned to the 'Barcoding" category, 90 were taken from 'Phylogeny' surveys, and 123 pertained to 'Phylogeography' surveys. Four hundred fifty two species labels matched our reference database, 84 were mismatches and the remainder could not be determined as matches or mismatches (Supplementary Table S1). Seventy six (90.5%) mismatches were from 'Barcoding'-type surveys and the remaining eight (9.5%) were from 'Phylogeny'-type studies (Supplementary Table S1). Therefore, mismatches were much more frequent in 'Barcoding' studies than in 'Phylogeny' and 'Phylogeography' studies (χ^2 test; $P < 0.001$).

Discussion

In this study, we showed that a 598-bp long fragment of the *COI* gene is an adequete marker for identifying individuals to species in the family Mugilidae. This DNA barcode enabled us to detect misidentifications in previously published barcoding studies, This in turn enabled us to assign corrected species names to all mugilid *COI* gene sequences currently accessible in GenBank.

The COI gene fragment as barcode in Mugilidae

The Mugilidae has long been recognized as a difficult family regarding morphology-based taxonomy and species identification, due to the high level of morphological conservatism among species. We expected that the *COI* gene would provide a welcome alternative to morphological characters for identification to species in the Mugilidae. All currently recognized species and presumed cryptic species within genera *Crenimugil*, *Osteomugil*, *Chelon* and *Planiliza* and within the *Mugil cephalus* and the *M. curema* species complexes (Durand and Borsa 2015) were successfully recovered by using the sole *COI*-barcode. A barcoding gap was observed in five out of the six test groups used for the present survey, namely the *M. curema* speciescomplex and the genera *Chelon*, *Crenimugil*, *Osteomugil* and *Planiliza*. A barcoding gap was also visible in the *M. cephalus* species complex, except that a small percentage of intra-lineage pairwise genetic distances between haplotypes were overlapping with those between lineages.

The strength of the present results stems from the fact that a proportion of the species were sampled distribution-wide. For instance, several Indo-West Pacific species of the genera *Planiliza*, *Osteomugil* and *Crenimugil* were sampled from both the western Indian Ocean, the Coral Triangle (Taiwan, Philippines, West Papua) and the western Pacific. Both the *M. cephalus* and *M. curema* species complexes were sampled distribution-wide, with few geographic gaps. For these species complexes, barcoding gaps are unlikely to be artifacts resulting from loose geographic sampling. Thus, *COI* sequences provide molecular evidence to species delineation where traditional morphological characters may be poorly diagnostic if not mostly helpless, e.g. for distinguishing cryptic species within the *M. cephalus* species complex. The present results indicate that *COI*-barcoding is a powerful tool to identify species in, at least, the five most speciose genera of the family Mugilidae.

Inconsistencies in publicly available sequence databases

All *COI* gene sequences of Mugilidae presently available from GenBank were screened against our reference barcode database. A number of inconsistencies in the species labeling of sequences deposited in GenBank were observed. Further, a substantial proportion of the *COI* gene sequences downloaded from GenBank presented species labels different from our reference sequence database. A mismatch may either indicate mitochondrial introgression of an individual correctly identified to species, or result from misidentification, or be caused by the inadvertent inversion of samples at some stage in the experiments or by contamination. In a number of cases (N = 28), the mitochondrial lineage belonged to a genus different from the one assigned to the sequence in GenBank (e.g. *P. affinis* for GenBank's "*Valamugil engeli*"). In the other cases (N = 52), the sequence apparently belonged to a distantly related species within the same genus (e.g. *M. trichodon* for GenBank's "*Mugil cephalus*"; *P. affinis* for GenBank's "*Liza subviridis*"). Therefore, we deemed the introgression hypothesis unlikely, because the mismatches concerned either species from different genera, or phylogenetically distant species within a genus, but not phylogenetically close species within a genus. We are then tempted to consider that most if not all mismatches in the published dataset that we examined likely correspond to misidentifications. Another possibility is

contaminations from other samples at one of the different steps of the barcoding process. This would explain the confusion between sequences from different fish families.

DNA barcoding studies are supposed to provide reference nucleotide-sequence databases to be used in subsequent ecological, fisheries, food and other types of studies that use DNA barcodes to identify species. The likely misidentifications of mugilid species in GenBank were more frequent in barcoding studies than in the two other types of studies that require the use of genetic markers (namely, phylogeny and phylogeography) and where accurate identification to species is also fundamental. Failure of some barcoding studies to provide accurate species identification possibly relate to the difficulty to gather a reliable systematic expertise for a wide range of fish taxa, which is the case when the DNA barcoding approach is done from a bulk sampling that did not target specific families, as do phylogeny surveys, or species, as do phylogeographic surveys. The present survey thus implicitly confirms that species in the family Mugilidae are particularly difficult to identify using morphological characters, and all the more emphasizes the utility of sound DNA barcoding in this family.

Potential use of the *COI* gene fragment for the taxonomic revision of Mugilidae

DNA-barcoding also proved a valuable tool to extend the Linnean approach to taxonomy in grey mullets. Overall, 97 deeply rooted lineages were observed in the present study, which we previously assumed to be likely distinct species (Durand and Borsa 2015; present study). A small majority (53) of these species have a valid name, while the remaining 44 have yet to be either resurrected or described anew. Therefore, considerable effort is still required to clarify the taxonomy of species in the family Mugilidae. Because it can now be assumed with a high degree of confidence that *COI* barcodes are diagnostic to most if not all mugilid species, they should become useful, and even essential to their delineation.

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Authors' contributions PB, JDD, NH and KNS designed the project; PB and JDD participated in the collection, identification and curation of samples; JDD and KNS supervised the laboratory work; PB and JDD analyzed and interpreted the data, and wrote the manuscript; NH edited a pre-final version; all authors read and approved the final manuscript.

Data accessibility The sequences are available from Genbank (see supplementary Table S1 for accession numbers). Supplementary materials are available from the Hal-IRD open-access online repository (http://www.hal.ird.fr/; hal@ird.fr).

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Legends to figures

Fig. 1 Neighbor-Joining trees constructed from Kimura 2-parameter distances (MEGA5: Tamura et al. 2011) for a 598-bp fragment of the *COI* gene. Each individual is designated by its number as in Durand and Borsa (2015) and by its geographic origin. Vertical grey bars on the right of the tree indicate *COI* haplotype clusters; vertical black bars indicate the lineages previously uncovered by the mitochondrial phylogeny of Durand et al. (2012a, b). Bootstrap score indicated at a node when > 50%. **a** *Mugil cephalus* species complex, including *M. cephalus*, *M. liza*, and *Mugil* spp. A-L, Q of Durand and Borsa (2015). **b** *Mugil curema* species complex, including *M. curema*, *M. incilis*, *M. thoburni*, and *Mugil* spp. M-O of Durand and Borsa (2015)

Fig. 2 Neighbor-Joining trees constructed from Kimura 2-parameter distances (MEGA5: Tamura et al. 2011) for a 598-bp fragment of the *COI* gene. Each individual is designated by its number as in Durand and Borsa (2015) and by its geographic origin. Vertical grey bars on the right of the tree indicate *COI* haplotype clusters; vertical black bars indicate the lineages previously uncovered by the mitochondrial phylogeny of Durand et al. (2012b). Bootstrap score indicated at a node when > 50%. **a** Species in the genus *Crenimugil* including *C. buchanani*, *C. crenilabis*, and *Crenimugil* spp. A-D of Durand and Borsa (2015) and in the genus *Osteomugil*, including *O. cunnesius*, *O. engeli*, *O. perusii*, *O. robustus*, and *Osteomugil* A, B of Durand and Borsa (2015). **b** Species in the genus *Chelon* including *C. auratus*, *C. bandialensis*, *C. dumerili*, *C. labrosus*, *C. ramado*, *C. richardsonii*, *C. saliens*, *C. tricuspidens*, and *Chelon* spp. A-B of Durand and Borsa (2015) and in the genus *Planiliza*, including *P. abu*, *P. affinis*, *P. alata*, *P. haematocheila*, *P. macrolepis*, *P. melinoptera*, *P. ordensis*, *P. subviridis*, and *Planiliza* A-J of Durand and Borsa (2015)

Fig. 3 Distribution of pairwise Kimura 2-parameter distances (MEGA5: Tamura et al. 2011) between haplotypes, estimated from the nucleotide sequences of a 598-bp fragment of the *COI* gene. Solid bars: within-lineage (i.e., within species or presumed species) distances; *open bars*: distances between lineages. **a** *Mugil cephalus* species complex, based on the sequences of Fig. 1a. **b** *M. curema* species complex, based on the sequences of Fig. 1b. **c** *Crenimugil* spp. and *Osteomugil* spp., based on the sequences of Fig. 2a. **d** *Chelon* spp. and *Planiliza* spp., based on the sequences of Fig. 2b

Supplementary Material

Supplementary Table S1. List of individual sequences at the *COI* locus, with sampling details, individual numbers, voucher details and GenBank accession numbers (http://www.ncbi.nlm.nih.gov/; accessed 21 Feb. 2015), including all reference individuals from a previous phylogenetic survey (Durand et al. 2012a, b; Durand and Borsa 2015). *Label (GenBank)* original species label in GenBank; *Species identification* identification from *COI* barcode (Figs. S3-S9) against Durand and Borsa's (2015) reference dataset [for all sequences retrieved from GenBank except those deposited by Durand et al.(2012a, b)]. Assessment of the accuracy of identification of grey mullet specimens used in barcoding, phylogenetic, and phylogeographic surveys: *M* match; *X* mismatch; *u* undetermined.

Supplementary Fig. S1 Phylogenetic trees of mitochondrial haplotypes constructed from partitioned maximum-likelihood analysis of 3,885 aligned nucleotides from 16S rRNA, *COI* and *cytb* gene sequences (edited from Durand et al. 2012b). Bootstrap scores > 50% are indicated. *Asterisks* indicate nodes with a posteriori probability from partitioned Bayesian analysis > 0.95. *Vertical bars* on the right of the tree indicate statistically supported lineages that have been considered to represent distinct species (Durand and Borsa 2015) **a** *Mugil cephalus* species complex. **b** *Mugil curema* species complex

Supplementary Fig. S2 Phylogenetic trees of mitochondrial haplotypes constructed from partitioned maximum-likelihood analysis of 3,885 aligned nucleotides from 16S rRNA, *COI* and *cytb* gene sequences (edited from Durand et al. 2012b). Bootstrap scores > 50% are indicated. *Asterisks* indicate nodes with a posteriori probability from partitioned Bayesian analysis > 0.95. *Vertical bars* on the right of the tree indicate statistically supported lineages that have been considered to represent distinct species (Durand and Borsa 2015). **a** Genera *Osteomugil* and *Crenimugil*, as redefined by Durand et al. (2012a). **b** Genera *Chelon* and *Planiliza*, as redefined by Durand et al. (2012a)

Supplementary Fig. S3 Neighbor-joining tree of 829 partial *COI*-gene sequences belonging to Mugilidae, including the 261 sequences of Durand et al. (2012 a,b) used as reference and 568 other sequences retrieved from GenBank on 21 February 2015. Distances were estimated using the K2P model in MEGA5 (Tamura et al. 2011). Bootstrap score indicated at a node when > 70%. *Vertical bars* on the right of the tree indicate strongly-supported lineages that represent distinct species according to Durand and Borsa (2015). Sub-trees of the *Mugil cephalus* and the *M. curema* species complexes are shown in Supplementary Figs. 4 and 5, respectively; those for the genera *Osteomugil*, *Crenimugil*, *Chelon*, and *Planiliza* are shown in Supplementary Figs. 6-9, respectively

Supplementary Fig. S4 Detail of sub-tree that represents *COI* haplotypes in the *Mugil cephalus* species complex, from the NJ tree of Supplementary Fig. S3. Bootstrap score indicated at a node when > 70%. *Vertical bars* on the right of the tree indicate strongly-supported lineages that represent distinct species according to Durand and Borsa (2015)

Supplementary Fig. S5 Detail of sub-tree that represents *COI* haplotypes in the *Mugil curema* species complex, from the NJ tree of Supplementary Fig. S3. Bootstrap score indicated at a node when > 70%. *Vertical bars* on the right of the tree indicate strongly-supported lineages that represent distinct species according to Durand and Borsa (2015)

Supplementary Fig. S6 Detail of sub-tree that represents *COI* haplotypes in the genus *Osteomugil*, from the NJ tree of Supplementary Fig. S3. Bootstrap score indicated at a node when > 70%. *Vertical bars* on the right of the tree indicate strongly-supported lineages that represent distinct species according to Durand and Borsa (2015)

Supplementary Fig. S7 Detail of sub-tree that represents *COI* haplotypes in the genus *Crenimugil*, from the NJ tree of Supplementary Fig. S3. Bootstrap score indicated at a node when > 70%. *Vertical bars* on the right of the tree indicate strongly-supported lineages that represent distinct species according to Durand and Borsa (2015)

Supplementary Fig. S8 Detail of sub-tree that represents *COI* haplotypes in the genus *Chelon*, from the NJ tree of Supplementary Fig. S3. Bootstrap scores are indicated at a node when > 70%. *Vertical bars* on the right of the tree indicate strongly-supported lineages that represent distinct species according to Durand and Borsa (2015)

Supplementary Fig. S9 Detail of sub-tree that represents *COI* haplotypes in the genus *Planiliza*, from the NJ tree of Supplementary Fig. S3. Bootstrap scores indicated at a node when > 70%. *Vertical bars* on the right of the tree indicate strongly-supported lineages that that represent distinct species according to Durand and Borsa (2015)

Figure1

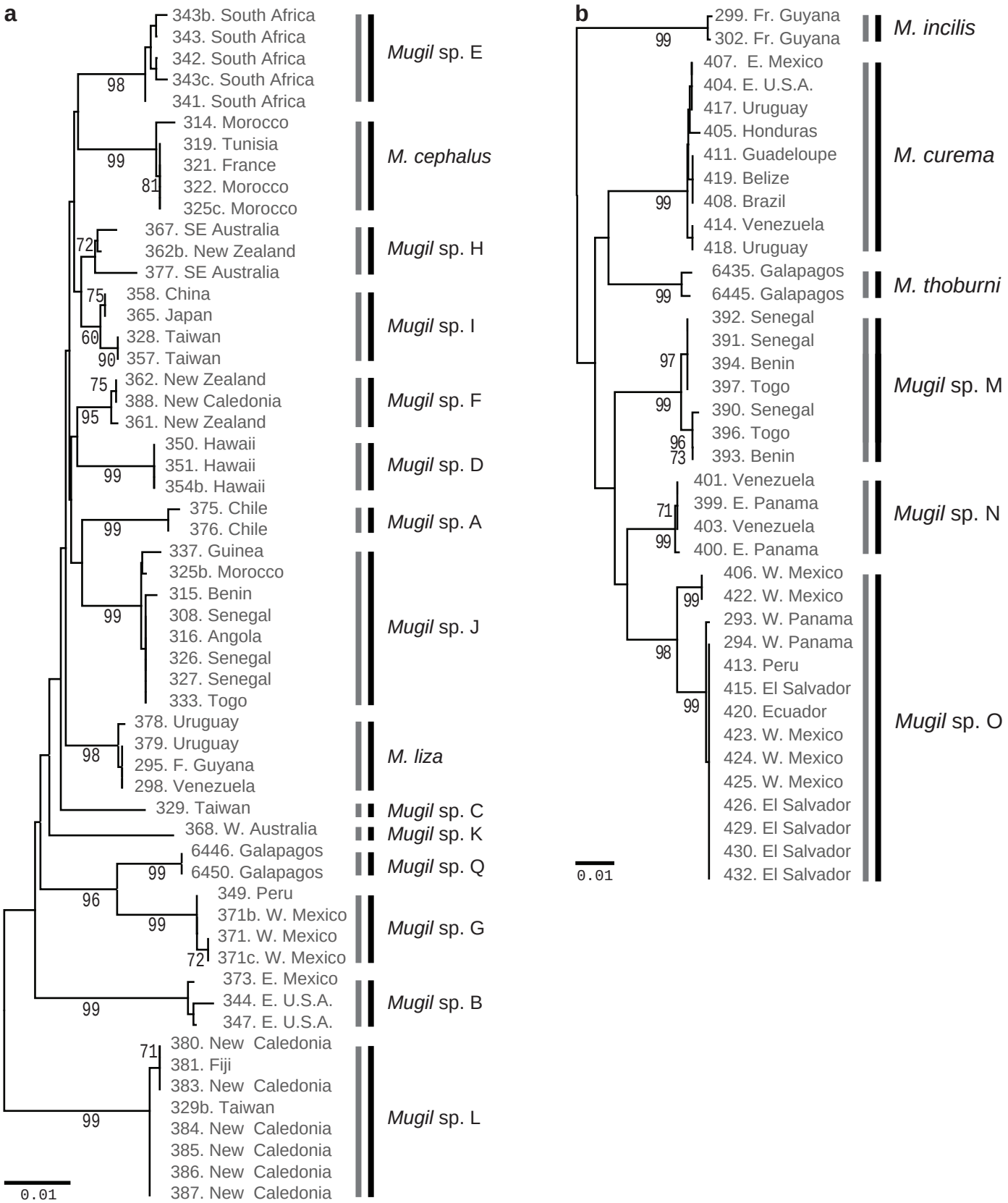
a
343b. South Africa
343. South Africa
342. South Africa
343c. South Africa
341. South Africa
Mugil sp. E
314. Morocco
319. Tunisia
321. France
322. Morocco
325c. Morocco
M. cephalus
367. SE Australia
362b. New Zealand
377. SE Australia
Mugil sp. H
358. China
365. Japan
328. Taiwan
357. Taiwan
Mugil sp. I
362. New Zealand
388. New Caledonia
361. New Zealand
Mugil sp. F
350. Hawaii
351. Hawaii
354b. Hawaii
Mugil sp. D
375. Chile
376. Chile
Mugil sp. A
337. Guinea
325b. Morocco
315. Benin
308. Senegal
316. Angola
326. Senegal
327. Senegal
333. Togo
Mugil sp. J
378. Uruguay
379. Uruguay
295. F. Guyana
298. Venezuela
M. liza
329. Taiwan
Mugil sp. C
368. W. Australia
Mugil sp. K
6446. Galapagos
6450. Galapagos
Mugil sp. Q
349. Peru
371b. W. Mexico
371. W. Mexico
371c. W. Mexico
Mugil sp. G
373. E. Mexico
344. E. U.S.A.
347. E. U.S.A.
Mugil sp. B
380. New Caledonia
381. Fiji
383. New Caledonia
329b. Taiwan
384. New Caledonia
385. New Caledonia
386. New Caledonia
387. New Caledonia
Mugil sp. L
0.01
b
299. Fr. Guyana
302. Fr. Guyana
M. incilis
407. E. Mexico
404. E. U.S.A.
417. Uruguay
405. Honduras
411. Guadeloupe
419. Belize
408. Brazil
414. Venezuela
418. Uruguay
M. curema
6435. Galapagos
6445. Galapagos
M. thoburni
392. Senegal
391. Senegal
394. Benin
397. Togo
390. Senegal
396. Togo
393. Benin
Mugil sp. M
401. Venezuela
399. E. Panama
403. Venezuela
400. E. Panama
Mugil sp. N
406. W. Mexico
422. W. Mexico
293. W. Panama
294. W. Panama
413. Peru
415. El Salvador
420. Ecuador
423. W. Mexico
424. W. Mexico
425. W. Mexico
426. El Salvador
429. El Salvador
430. El Salvador
432. El Salvador
Mugil sp. O
0.01

Figure2

a
271. Sri Lanka
268. Philippines
274. Taiwan
264. New Caledonia
275. W. Australia
276b. Vietnam
276. Taiwan
278. E. South Africa
200. Hawaii
201. Moorea
203. Tahiti
198. Saipan
255. Réunion
259. E. South Africa
260. E. South Africa
245. New Caledonia
248. Kenya
252. Kenya
254. E. South Africa
229. Vietnam
232. E. Australia
234. N. Australia
235. N. Australia
238. Fiji
239. Fiji
241. Taiwan
215. Oman
217. Persian Gulf
218. Seychelles
214. Fiji
212. Réunion
210. Saipan
204. New Caledonia
205. Philippines
206. Taiwan
207. West Papua
209. Maldives
213. Fiji
222. Réunion
221a. Tanzania
220. Seychelles
221. Sri Lanka
226. New Caledonia
225. New Caledonia
195. Seychelles
194. Chesterfield
193. Saipan
190. Moorea
187. Maldives
185. Gambier
192. Tuamotu
191. Tahiti
O. perusii
Osteomugil sp. A
O. cunnesius
Osteomugil sp. B
O. engeli
O. robustus
C. buchanani
Crenimugil sp. C
Crenimugil sp. D
Crenimugil sp. A
Crenimugil sp. B
C. crenilabis
0.02
b
054. Senegal
056. Guinea-B.
155. E. South Africa
166. Tunisia
157. Namibia
158. E. South Africa
161. E. South Africa
079. E. South Africa
080. E. South Africa
077. Togo
073. Senegal
078b. Guinea-B.
076. Senegal
173. Tunisia
174b. Morocco
178. Morocco
180. Tunisia
179b. Morocco
171d. Morocco
171c. Morocco
169. Morocco
171b. W. Sahara
168. Tunisia
162. N. Australia
164. N. Australia
114. Persian Gulf
113. Persian Gulf
061. Tigris river
064. Taiwan
069. S. Java
070. Sri Lanka
165. E. South Africa
165b. E. South Africa
151. Seychelles
144. Oman
145. Oman
150. E. South Africa
154. Sri Lanka
146. Maldives
143. Fiji
124. New Caledonia
136. New Caledonia
132. New Caledonia
137. Japan
135. New Caledonia
138. Taiwan
133. New Caledonia
175. Myanmar
176. Myanmar
062b. Vietnam
062. Sri Lanka
063. Taiwan
103. Philippines
107. Philippines
118. S. Java
109. Fiji
111. Fiji
108. Taiwan
122. N. Australia
095. Taiwan
102. Taiwan
057b. Vietnam
057x. Taiwan
C. bandialensis
C. tricuspidens
C. saliens
C. richardsonii
Chelon sp. A
Chelon sp. B
C. dumerili
C. ramado
C. labrosus
C. auratus
P. ordensis
Planiliza sp. A
P. abu
P. subviridis
P. alata
P. macrolepis
Planiliza sp. H
Planiliza sp. I
Planiliza sp. D
Planiliza sp. J
Planiliza sp. C
Planiliza sp. B
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Planiliza sp. G
Planiliza sp. F
P. haematocheila
Planiliza sp. E
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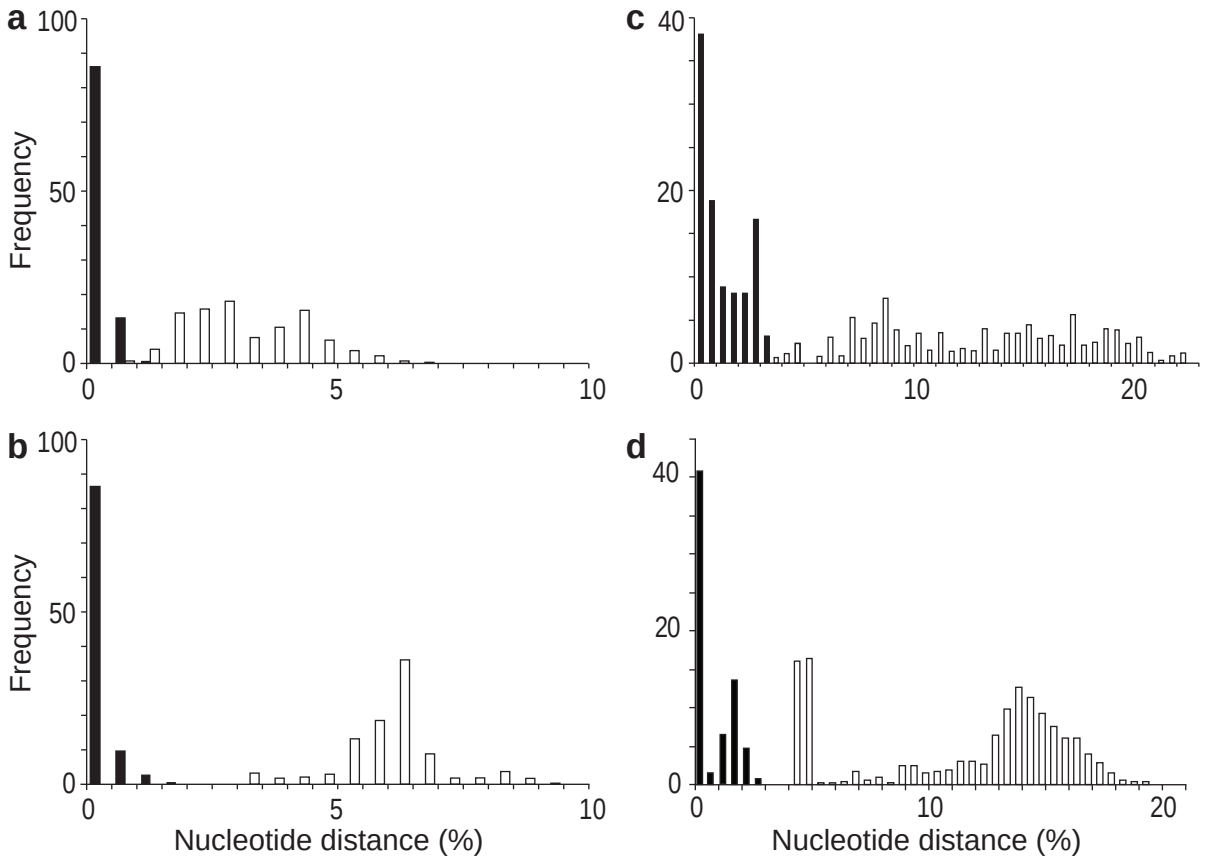
Figure3



Supplementary material to:

DNA barcoding grey mullets

Jean-Dominique Durand · Nicolas Hubert · Kang-Ning Shen · Philippe Borsa¶

Supplementary Table S1 and Figs. S1-S9 here appended.

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Supplementary Table S1. List of individual sequences at the *COI* locus, with sampling details, individual numbers, voucher details and GenBank accession numbers (http://www.ncbi.nlm.nih.gov/; accessed 21 Feb. 2015), including all reference individuals from a previous phylogenetic survey (Durand *et al.* 2012a, b; Durand & Borsa 2015). *Label (GenBank)* original species label in GenBank; *Species identification* identification from *COI* barcode (Suppl. Figs. S3-S9) against Durand & Borsa's (2015) reference dataset [for all sequences retrieved from GenBank except those deposited by Durand *et al.* (2012a, b)]. Assessment of the accuracy of identification of grey mullet specimens used in barcoding, phylogenetic, and phylogeographic surveys: *M* match; *X* mismatch; *u* undetermined

Sequence no. (GenBank)	Specimen no.	Tissue voucher no.	Sampling details			Reference	Survey type	Label (GenBank)	Species identification	Match
			Location	Date	Collector(s)					
AY655531	-	-	Panama City, Florida, USA	-	-	Sparks and Smith 2004	Phylogeny	*Mugil cephalus*	*Mugil* sp. C	M
DQ441603	1MCUR	-	-	-	-	Heras et al. 2006	Phylogeography	*Mugil curema*	*Mugil* sp.	u
DQ441604	2MCUR	-	-	-	-	Heras et al. 2006	Phylogeography	*Mugil curema*	*Mugil curema*	M
DQ441605	3MCUR	-	-	-	-	Heras et al. 2006	Phylogeography	*Mugil curema*	*Mugil curema*	M
DQ441606	4MCUR	-	-	-	-	Heras et al. 2006	Phylogeography	*Mugil curema*	*Mugil curema*	M
DQ441607	5MCUR	-	-	-	-	Heras et al. 2006	Phylogeography	*Mugil curema*	*Mugil curema*	M
DQ441608	6MCEP	-	Mediterranean (41°50'N, 03°08'E)	-	-	Heras et al. 2006	Phylogeography	*Mugil cephalus*	*Mugil cephalus*	M
DQ441609	7MCEP	-	Mediterranean (41°50'N, 03°08'E)	-	-	Heras et al. 2006	Phylogeography	*Mugil cephalus*	*Mugil cephalus*	M
DQ441610	8MCEP	-	Mediterranean (41°50'N, 03°08'E)	-	-	Heras et al. 2006	Phylogeography	*Mugil cephalus*	*Mugil cephalus*	M
EF607446	FSCS304-06	GD 9087015	South China Sea, China (21.43°N 110.13°E)	10 Aug. 2006	J. Zhang	Zhang 2011	Barcoding	*Liza* sp.	*Planiliza subviridis*	u
EF607447	FSCS303-06	GD 9087014	South China Sea, China (21.42°N 110.17°E)	10 Aug. 2006	J. Zhang	Zhang 2011	Barcoding	*Liza* sp.	*Planiliza subviridis*	u
EF607615	FSCS251-06	GD 9083012	South China Sea, China		J. Zhang	Zhang 2011	Barcoding	*Valamugil engeli*	*Planiliza affinis*	X
EF609279 [a]	CSIRO H3962-06	BW-A1175	unknown location, Australia	13 Apr. 1995	G. Yearsley	Ward and Holmes 2007	Barcoding	*Aldrichetta forsteri*	*Aldrichetta forsteri*	-
EF609494 [a]	CSIRO-H4596-01	BW-A1182	Mackay harbour boat ramp, Queensland, Australia (21.28°S 149.30°E)	30 May 1997	CRIMP	Ward and Holmes 2007	Barcoding	*Moolgarda seheli*	*Crenimugil* sp. C	M
EF609544	-	WL-M378	Kerala, India (9.97°N 76.23°E)	27 Mar. 2006	-	Lakra et al. 2011	Barcoding	*Chelon macrolepis*	*Planiliza subviridis*	X
EF609545	-	WL-M376	Kerala, India (9.97°N 76.23°E)	27 Mar. 2006	-	Lakra et al. 2011	Barcoding	*Chelon macrolepis*	*Planiliza subviridis*	X
EF609546	-	WL-M375	Kerala, India (9.97°N 76.23°E)	27 Mar. 2006	-	Lakra et al. 2011	Barcoding	*Chelon macrolepis*	*Planiliza subviridis*	X
EF609547	-	WL-M374	Kerala, India (9.97°N 76.23°E)	26 Mar. 2006	-	Lakra et al. 2011	Barcoding	*Chelon macrolepis*	*Planiliza subviridis*	X
EU014262	-	WL-M785	India	-	-	Lakra et al. 2011	Barcoding	*Liza tade*	*Osteomugil* sp.	X
EU014263	-	WL-M786	India	-	-	Lakra et al. 2011	Barcoding	*Liza tade*	*Osteomugil* sp.	X
EU014264	-	WL-M787	India	-	-	Lakra et al. 2011	Barcoding	*Liza tade*	*Osteomugil* sp.	X
EU014265	-	WL-M788	India	-	-	Lakra et al. 2011	Barcoding	*Liza tade*	*Osteomugil* sp.	X
EU074483	FARG331-07	INIDEP-T 0330	Argentina (37.32°S 57.19°W)	10 Oct. 2006	M. Gonzalez Castro	Mabragana et al. 2011	Barcoding	*Mugil platanus*	*Mugil liza*	M
EU074484	FARG298-07	INIDEP-T 0297	Argentina (37.32°S 57.19°W)	30 Mar. 2006	M. Gonzalez Castro	Mabragana et al. 2011	Barcoding	*Mugil platanus*	*Mugil liza*	M
EU074485	FARG294-07	INIDEP-T 0293	Argentina (37.32°S 57.19°W)	30 Mar. 2006	M. Gonzalez Castro	Mabragana et al. 2011	Barcoding	*Mugil platanus*	*Mugil liza*	M
EU392233	Cl	-	Italy	-	-	-	Phylogeny	*Chelon labrosus*	*Chelon labrosus*	M
EU392234	La_A	-	Azov Sea, Russia	-	-		Phylogeny	*Liza aurata*	*Chelon auratus*	M
EU392235	La_M	-	Italy	-	-	-	Phylogeny	*Liza aurata*	*Chelon auratus*	M
EU392236	Ch_A	-	Azov Sea, Russia	-	-	-	Phylogeny	*Liza haematocheila*	*Planiliza haematocheila*	M
EU392237	Ch_J	-	Japan Sea, Russia	-	-	-	Phylogeny	*Liza haematocheila*	*Planiliza haematocheila*	M
EU392239	Lm	-	Taiwan	-	-	-	Phylogeny	*Chelon macrolepis*	*Planiliza* sp. H	M
EU392240	Lr	-	Italy	-	-	-	Phylogeny	*Liza ramada*	*Chelon ramado*	M
EU392241	Ls	-	Italy	-	-	-	Phylogeny	*Liza saliens*	*Chelon saliens*	M
EU392242	Lsub	-	Taiwan	-	-	-	Phylogeny	*Liza subviridis*	*Planiliza affinis*	X
EU392243	Mc_A	-	Azov Sea, Russia	-	-	-	Phylogeny	*Mugil cephalus*	*Mugil cephalus*	M
EU392246	Mc_T	-	Taiwan	-	-	-	Phylogeny	*Mugil cephalus*	*Mugil* sp. L	M
EU392247	Vc	-	Taiwan	-	-	-	Phylogeny	*Moolgarda cunnesius*	*Crenimugil* sp. D	u
EU489714	-	SIO:98-1	California, USA	-	-	-	Barcoding	*Mugil curema*	*Mugil* sp. O	M
EU595084	-	MBCSC:Z711229	South China Sea, China (20.05°N 111.48°E)	28 Oct. 2007	J. Zhang	-	Barcoding	*Mugil cephalus*	*Mugil* sp. I	M
EU595085	-	MBCSC:Z711228	South China Sea, China (21.09°N 112.55°E)	28 Oct. 2007	J. Zhang	-	Barcoding	*Mugil cephalus*	*Mugil* sp. I	M
EU595338	-	MBCSC:Z711255	South China Sea, China (21.07°N 111.56°E)	30 Oct. 2007	J. Zhang	-	Barcoding	*Valamugil cunnesius*	*Osteomugil cunnesius*	M
EU595339	-	MBCSC:Z711254	South China Sea, China (21.07°N 111.56°E)	30 Oct. 2007	J. Zhang	-	Barcoding	*Valamugil cunnesius*	*Osteomugil cunnesius*	M
EU595340	-	MBCSC:Z711253	South China Sea, China (19.68°N 112.77°E)	30 Oct. 2007	J. Zhang	-	Barcoding	*Valamugil cunnesius*	*Osteomugil cunnesius*	M
EU595341	-	MBCSC:Z711252	South China Sea, China (19.68°N 112.77°E)	30 Oct. 2007	J. Zhang	-	Barcoding	*Valamugil cunnesius*	*Osteomugil cunnesius*	M
EU595342	-	MBCSC:Z711251	South China Sea, China (20.52°N 110.98°E)	30 Oct. 2007	J. Zhang	-	Barcoding	*Valamugil cunnesius*	*Osteomugil cunnesius*	M
EU595343	-	MBCSC:Z711250	South China Sea, China (20.52°N 110.98°E)	30 Oct. 2007	J. Zhang	-	Barcoding	*Valamugil cunnesius*	*Osteomugil cunnesius*	M
EU715451	4Mcep	-	Galveston Bay, USA	-	-	Heras et al. 2009	Phylogeny	*Mugil cephalus*	*Mugil* sp. B	M
EU715452	5Mcep	-	Galveston Bay, USA	-	-	Heras et al. 2009	Phylogeny	*Mugil cephalus*	*Mugil* sp. B	M
EU715453	6Mcep	-	Galveston Bay, USA	-	-	Heras et al. 2009	Phylogeny	*Mugil cephalus*	*Mugil* sp. B	M
EU715454	7Mcep	-	Galveston Bay, USA	-	-	Heras et al. 2009	Phylogeny	*Mugil cephalus*	*Mugil* sp. B	M
EU715455	8Mpl	-	-	-	-	Heras et al. 2009	Phylogeny	*Mugil platanus*	*Mugil liza*	M
EU715456	9Mpl	-	Montevideo, Uruguay	-	-	Heras et al. 2009	Phylogeny	*Mugil platanus*	*Mugil liza*	M
EU715457	10Mpl	-	Samborombon Bay, Argentina	-	-	Heras et al. 2009	Phylogeny	*Mugil platanus*	*Mugil liza*	M
EU715458	11Mpl	-	Viedma, Argentina	-	-	Heras et al. 2009	Phylogeny	*Mugil platanus*	*Mugil liza*	M

EU715459	12Mpl	-	San Lorenzo lagoon, Argentina	-	-	Heras et al. 2009	Phylogeny	*Mugil platanus*	*Mugil liza*	M
EU715460	13Mpl	-	San Lorenzo lagoon, Argentina	-	-	Heras et al. 2009	Phylogeny	*Mugil platanus*	*Mugil liza*	M
EU715461	14Mpl	-	San Lorenzo lagoon, Argentina	-	-	Heras et al. 2009	Phylogeny	*Mugil platanus*	*Mugil liza*	M
EU715462	15Mli	-	Tunas de Zaza, Cuba	-	-	Heras et al. 2009	Phylogeny	*Mugil liza*	*Mugil liza*	M
EU715463	21Mcur	-	Mar Chiquita lagoon, Argentina	-	-	Heras et al. 2009	Phylogeny	*Mugil curema*	*Mugil curema*	M
EU715464	22Mcur	-	Mar del Plata, Argentina	-	-	Heras et al. 2009	Phylogeny	*Mugil curema*	*Mugil curema*	M
EU715465	23Mcur	-	Mar Chiquita lagoon, Argentina	-	-	Heras et al. 2009	Phylogeny	*Mugil curema*	*Mugil rubrioculus*	X
EU715466	24Lau	-	Palamos, Spain	-	-	Heras et al. 2009	Phylogeny	*Liza aurata*	*Chelon auratus*	M
EU715467	25Lau	-	Palamos, Spain	-	-	Heras et al. 2009	Phylogeny	*Liza aurata*	*Chelon auratus*	M
EU715468	26Lau	-	Palamos, Spain	-	-	Heras et al. 2009	Phylogeny	*Liza aurata*	*Chelon auratus*	M
EU715470	28Lsal	-	Moulay Bousselham lagoon,Morocco	-	-	Heras et al. 2009	Phylogeny	*Liza saliens*	*Chelon saliens*	M
EU715471	29Lsal	-	Moulay Bousselham lagoon, Morocco	-	-	Heras et al. 2009	Phylogeny	*Liza saliens*	*Chelon saliens*	M
EU715472	30Chl	-	Ter Vell lagoon, Spain	-	-	Heras et al. 2009	Phylogeny	*Chelon labrosus*	*Chelon labrosus*	M
EU715473	31CH1	-	Ter Vel Lagoon, Spain	-	-	Heras et al. 2009	Phylogeny	*Chelon labrosus*	*Chelon labrosus*	M
EU715474	32Chl	-	Ter Vell lagoon, Spain	-	-	Heras et al. 2009	Phylogeny	*Chelon labrosus*	*Chelon labrosus*	M
FJ238048	-	MBCSC:ZCI07381	South China Sea, China (20.52°N 110.98°E)	30 Oct. 2007	J. Zhang	-	Barcoding	*Valamugil cunnesius*	*Osteomugil cunnesius*	M
FJ347895	-	NBFGR:MC174	Mumbai, India (19.02°N 72.46°E)	-	-	Lakra et al. 2011	Barcoding	*Mugil cephalus*	*Planiliza* sp. D	X
FJ347896	-	NBFGR:MC175	Mumbai, India (19.02°N 72.46°E)	-	-	Lakra et al. 2011	Barcoding	*Mugil cephalus*	*Planiliza* sp. D	X
FJ347897	-	NBFGR:MC176	Mumbai, India (19.02°N 72.46°E)	-	-	Lakra et al. 2011	Barcoding	*Mugil cephalus*	*Planiliza* sp. D	X
FJ347898	-	NBFGR:MC177	Mumbai, India (19.02°N 72.46°E)	-	-	Lakra et al. 2011	Barcoding	*Mugil cephalus*	*Planiliza* sp. D	X
FJ347899	-	NBFGR:MC178	Mumbai, India (19.02°N 72.46°E)	-	-	Lakra et al. 2011	Barcoding	*Mugil cephalus*	*Planiliza* sp. D	X
FJ347967	-	NBFGR:LM01D	Kochi, India (10.02°N 76.13°E)	-	-	Lakra et al. 2011	Barcoding	*Chelon macrolepis*	*Planiliza subviridis*	X
FJ384677	IOBML1	SV_1	Bay of Bengal, India	14 Apr. 2008	S. Ajmalkhan	-	Barcoding	*Liza parsia*	*Planiliza* sp. H	X
FJ918950	-	-	-	-	-	-	Phylogeny	*Mugil trichodon*	*Mugil* sp. R	X
FN545593	BC-110	MFP:18.000246	Manglarito stream, Baracoa, Guantanamo, Cuba	Mar. 2009	J.L. Ponce de Leon	Lara et al. 2010	Barcoding	*Agonostomus monticola*	*Dajaus monticola*	M
FN545594	BC-115	MFP:18.000247	Manglarito stream, Baracoa, Guantanamo, Cuba	Mar. 2009	J.L. Ponce de Leon	Lara et al. 2010	Barcoding	*Agonostomus monticola*	*Dajaus monticola*	M
FN600159	-	-	Red Sea, Egypt	-	-	-	Barcoding	*Liza carinata*	*Planiliza sp. H*	X
FN600160	-	-	Red Sea, Egypt	-	-	-	Barcoding	*Crenimugil crenilabis*	*Crenimugil* sp. B	X
GU224562	-	MFL1508	West Cancun St.5 G.G., Quintana Roo, Mexico (21.37°N 86.14°W)	01 jan. 2007	I. Castellanos Osorio	-	Barcoding	*Mugil cephalus*	*Mugil trichodon*	X
GU224563	-	MFL1507	West Cancun St.5 G.G., Quintana Roo, Mexico (21.37°N 86.14°W)	01 jan. 2007	I. Castellanos Osorio	-	Barcoding	*Mugil cephalus*	*Mugil trichodon*	X
GU225390	-	MX160	Puente Xcalak, Quintana Roo, Mexico	01 Dec. 2005	R. Herrera et al.	-	Barcoding	*Mugil sp.*	*Mugil liza*	u
GU225391	-	MX659	Pt Chen, Laguna Yalahau, Quintana Roo, Mexico (21.44°N 87.31°W)	02 Feb. 2006	V. Garcia	-	Barcoding	*Mugil cephalus*	*Mugil trichodon*	X
GU225392	-	MX663	Pt Chen, Laguna Yalahau, Quintana Roo, Mexico (21.44°N 87.31°W)	02 Feb. 2006	V. Garcia	-	Barcoding	*Mugil cephalus*	*Mugil trichodon*	X
GU225393	-	MX660	Pt Chen, Laguna Yalahau, Quintana Roo, Mexico (21.44°N 87.31°W)	02 Feb. 2006	V. Garcia	-	Barcoding	*Mugil cephalus*	*Mugil trichodon*	X
GU225394	-	MX662	Pt Chen, Laguna Yalahau, Quintana Roo, Mexico (21.44°N 87.31°W)	02 Feb. 2006	V. Garcia	-	Barcoding	*Mugil cephalus*	*Mugil trichodon*	X
GU225395	-	MX661	Pt Chen, Laguna Yalahau, Quintana Roo, Mexico (21.44°N 87.31°W)	02 Feb. 2006	V. Garcia	-	Barcoding	*Mugil cephalus*	*Mugil trichodon*	X
GU225396	-	MX668	Pt Chen, Laguna Yalahau, Quintana Roo, Mexico (21.44°N 87.31°W)	02 Feb. 2006	V. Garcia	-	Barcoding	*Mugil curema*	*Mugil rubrioculus*	X
GU225397	-	MX665	Pt Chen, Laguna Yalahau, Quintana Roo, Mexico (21.44°N 87.31°W)	02 Feb. 2006	V. Garcia	-	Barcoding	*Mugil curema*	*Mugil rubrioculus*	X
GU225398	-	ECO-CH-P5493B	Xcalak, Quintana Roo, Mexico (18.27°N 87.83°W)	05 Aug. 2005	M. Valdez	-	Barcoding	*Mugil curema*	*Mugil rubrioculus*	X
GU225399	-	ECO-CH-P5493A	Xcalak, Quintana Roo, Mexico (18.27°N 87.83°W)	05 Aug. 2005	M. Valdez	-	Barcoding	*Mugil curema*	*Mugil rubrioculus*	X
GU225400	-	ECO-CH-P5493C	Xcalak, Quintana Roo, Mexico (18.27°N 87.83°W)	05 Aug. 2005	M. Valdez	-	Barcoding	*Mugil curema*	*Mugil rubrioculus*	X
GU225401	-	MX159	Puente Xcalak, Quintana Roo, Mexico (18.28°N 87.83°W)	01 Dec. 2005	R. Herrera et al.	-	Barcoding	*Mugil liza*	*Mugil* sp. B	X
GU225402	-	MX664	Pt Chen, Laguna Yalahau, Quintana Roo, Mexico (21.44°N 87.31°W)	02 Feb. 2006	V. Garcia	-	Barcoding	*Mugil trichodon*	*Mugil curema*	X
GU225403	-	MX667	Pt Chen, Laguna Yalahau, Quintana Roo, Mexico (21.44°N 87.31°W)	02 Feb. 2006	M. Valdez	-	Barcoding	*Mugil trichodon*	*Mugil curema*	X
GU225404	-	MX666	Pt Chen, Laguna Yalahau, Quintana Roo, Mexico (21.44°N 87.31°W)	02 Feb. 2006	V. Garcia	-	Barcoding	*Mugil trichodon*	*Mugil curema*	X
GU225405	-	ECO-CH-P5688d	Xcalak, Quintana Roo, Mexico (18.27°N 87.83°W)	05 Aug. 2005	M. Valdez	-	Barcoding	*Mugil trichodon*	*Mugil curema*	X
GU225406	-	ECO-CH-P5688e	Xcalak, Quintana Roo, Mexico (18.27°N 87.83°W)	05 Aug. 2005	M. Valdez	-	Barcoding	*Mugil trichodon*	*Mugil curema*	X
GU260664	08KP1_HT2	-	Kaoping Estuary, Taiwan	-	K.-N. Shen	Shen et al. 2011	Phylogeography	*Mugil cephalus*	*Mugil* sp. C	M
GU260665	05KS21_HT4	-	Kaohsiung, Taiwan	-	K.-N. Shen	Shen et al. 2011	Phylogeography	*Mugil cephalus*	*Mugil* sp. C	M
GU260666	05KS22_HT10	-	Kaohsiung, Taiwan	-	K.-N. Shen	Shen et al. 2011	Phylogeography	*Mugil cephalus*	*Mugil* sp. C	M
GU260667	07KS6_HT1	-	Kaohsiung, Taiwan	-	K.-N. Shen	Shen et al. 2011	Phylogeography	*Mugil cephalus*	*Mugil* sp. C	M
GU260668	05KL32_HT5	-	Keelung, Taiwan	-	K.-N. Shen	Shen et al. 2011	Phylogeography	*Mugil cephalus*	*Mugil* sp. C	M
GU260669	07KL12_HT6	-	Keelung, Taiwan	-	K.-N. Shen	Shen et al. 2011	Phylogeography	*Mugil cephalus*	*Mugil* sp. C	M
GU260670	07KL33_HT3	-	Keelung, Taiwan	-	K.-N. Shen	Shen et al. 2011	Phylogeography	*Mugil cephalus*	*Mugil* sp. C	M
GU260671	07KS37_HT11	-	Kaohsiung, Taiwan	-	K.-N. Shen	Shen et al. 2011	Phylogeography	*Mugil cephalus*	*Mugil* sp. C	M
GU260672	06KL23_HT12	-	Keelung, Taiwan	-	K.-N. Shen	Shen et al. 2011	Phylogeography	*Mugil cephalus*	*Mugil* sp. C	M
GU260673	07KL27_HT7	-	Keelung, Taiwan	-	K.-N. Shen	Shen et al. 2011	Phylogeography	*Mugil cephalus*	*Mugil* sp. C	M
GU260674	05KS19_HT8	-	Kaohsiung, Taiwan	-	K.-N. Shen	Shen et al. 2011	Phylogeography	*Mugil cephalus*	*Mugil* sp. C	M
GU260675	05KL42_HT9	-	Keelung, Taiwan	-	K.-N. Shen	Shen et al. 2011	Phylogeography	*Mugil cephalus*	*Mugil* sp. C	M
GU260676	07KS4_HT13	-	Kaohsiung, Taiwan	-	K.-N. Shen	Shen et al. 2011	Phylogeography	*Mugil cephalus*	*Mugil* sp. C	M
GU260677	05KL7_HT15	-	Keelung, Taiwan	-	K.-N. Shen	Shen et al. 2011	Phylogeography	*Mugil cephalus*	*Mugil* sp. C	M
GU260678	YOKOSUKA9_HT14	-	Yokosuka, Japan	-	S. Chow	Shen et al. 2011	Phylogeography	*Mugil cephalus*	*Mugil* sp. C	M

GU260679	08KP2_H25	-	Kaoping Estuary, Taiwan	-	K.-N. Shen	Shen et al. 2011	Phylogeography	*Mugil cephalus*	*Mugil* sp. I	M
GU260680	08KP31_H16	-	Kaoping Estuary, Taiwan	-	K.-N. Shen	Shen et al. 2011	Phylogeography	*Mugil cephalus*	*Mugil* sp. I	M
GU260681	05KP3_HT24	-	Kaoping Estuary, Taiwan	-	K.-N. Shen	Shen et al. 2011	Phylogeography	*Mugil cephalus*	*Mugil* sp. I	M
GU260682	05KL6_HT27	-	Keelung, Taiwan	-	K.-N. Shen	Shen et al. 2011	Phylogeography	*Mugil cephalus*	*Mugil* sp. I	M
GU260683	OKINAWA17_HT26	-	Okinawa Is., Japan	-	-	Shen et al. 2011	Phylogeography	*Mugil cephalus*	*Mugil* sp. I	M
GU260684	08KP22_HT18	-	Kaoping Estuary, Taiwan	-	K.-N. Shen	Shen et al. 2011	Phylogeography	*Mugil cephalus*	*Mugil* sp. I	M
GU260685	08KP38_HT21	-	Kaoping Estuary, Taiwan	-	K.-N. Shen	Shen et al. 2011	Phylogeography	*Mugil cephalus*	*Mugil* sp. I	M
GU260686	07KL1_HT19	-	Keelung, Taiwan	-	K.-N. Shen	Shen et al. 2011	Phylogeography	*Mugil cephalus*	*Mugil* sp. I	M
GU260687	07KL3_HT22	-	Keelung, Taiwan	-	K.-N. Shen	Shen et al. 2011	Phylogeography	*Mugil cephalus*	*Mugil* sp. I	M
GU260688	07KL41_HT20	-	Keelung, Taiwan	-	K.-N. Shen	Shen et al. 2011	Phylogeography	*Mugil cephalus*	*Mugil* sp. I	M
GU260689	PHILI6_HT23	-	Luzon, Philippines	-	B.W. Jamandre	Shen et al. 2011	Phylogeography	*Mugil cephalus*	*Mugil* sp. I	M
GU260690	08KP35_HT28	-	Kaoping Estuary, Taiwan	-	K.-N. Shen	Shen et al. 2011	Phylogeography	*Mugil cephalus*	*Mugil* sp. I	M
GU260691	07KP9_HT29	-	Kaoping Estuary, Taiwan	-	K.-N. Shen	Shen et al. 2011	Phylogeography	*Mugil cephalus*	*Mugil* sp. I	M
GU260692	PEARL3_HT30	-	Pearl River, China	-	X. Nie	Shen et al. 2011	Phylogeography	*Mugil cephalus*	*Mugil* sp. I	M
GU260693	07KL21_HT17	-	Keelung, Taiwan	-	K.-N. Shen	Shen et al. 2011	Phylogeography	*Mugil cephalus*	*Mugil* sp. I	M
GU260694	08KP9_HT32	-	Kaoping Estuary, Taiwan	-	K.-N. Shen	Shen et al. 2011	Phylogeography	*Mugil cephalus*	*Mugil* sp. L	M
GU260695	05KP2_HT31	-	Kaoping Estuary, Taiwan	-	K.-N. Shen	Shen et al. 2011	Phylogeography	*Mugil cephalus*	*Mugil* sp. L	M
GU260696	PEARL7_HT33	-	Pearl River, China	-	X. Nie	Shen et al. 2011	Phylogeography	*Mugil cephalus*	*Mugil* sp. L	M
GU260697	SHANTOU7_HT34	-	Shantou, China	-		Shen et al. 2011	Phylogeography	*Mugil cephalus*	*Mugil* sp. L	M
GU440409	-	MFC108	S of La Bocana, Baja California S, Mexico (26.75°N 114.25°W)	01 Jan. 1998	D. Talley, P. Dayton	-	Barcoding	*Mugil curema*	*Mugil* sp. O	M
GU702392	-	LBP-35141	Sao Paulo, Brazil	-	-	Oliveira Ribeiro et al. 2012	Barcoding	*Mugil liza*	*Mugil liza*	M
GU702394	-	LBP-35143	Sao Paulo, Brazil	-	-	Oliveira Ribeiro et al. 2012	Barcoding	*Mugil liza*	*Mugil liza*	M
GU702395	-	LBP-35139	Sao Paulo, Brazil	-	-	Oliveira Ribeiro et al. 2012	Barcoding	*Mugil liza*	*Mugil liza*	M
GU702397	-	LBP-35142	Sao Paulo, Brazil	-	-	Oliveira Ribeiro et al. 2012	Barcoding	*Mugil liza*	*Mugil liza*	M
HM006970	-	GU_AW418	Southeastern Queensland, Australia	-	-	Page and Hughes 2010	Barcoding	*Mugil cephalus*	*Mugil* sp. H	M
HM180700	-	NSMK:PI-000415	Korea	-	-	-	Barcoding	*Liza haematocheila*	*Planiliza haematocheila*	M
HM208823	2Cba	-	Senegal and Bijagos	-	-	-	Phylogeny	*Liza bandialensis*	*Chelon bandialensis*	M
HM208824	3Cba	MNHN 2009-0790-94	Saloum estuary, Senegal	-	J.-D. Durand	-	Phylogeny	*Liza bandialensis*	*Chelon bandialensis*	M
HM208825	6Cba	MNHN 2009-0790-94	Saloum estuary, Senegal	-	J.-D. Durand	-	Phylogeny	*Liza bandialensis*	*Chelon bandialensis*	M
HM208826	8Ldu	-	West Africa	-	-	-	Phylogeny	*Liza dumerili*	*Chelon dumerili*	M
HM208827	9Ldu	-	West Africa	-	-	-	Phylogeny	*Liza dumerili*	*Chelon dumerili*	M
HM208828	19Lfa	-	Saloum estuary, Senegal	-	J.-D. Durand	-	Phylogeny	*Liza falcipinnis*	*Neochelon falcipinnis*	M
HM208829	22Lfa	-	West Africa	-	-	-	Phylogeny	*Liza falcipinnis*	*Neochelon falcipinnis*	M
HM208830	26Lfa	-	Lomé fish market, Togo	-	J.-F. Trape	-	Phylogeny	*Liza falcipinnis*	*Neochelon falcipinnis*	M
HM208831	27Lgr	-	West Africa	-	-	-	Phylogeny	*Liza grandisquamis*	*Parachelon grandisquamis*	M
HM208832	29Lgr	-	Saloum estuary, Senegal	-	J.-D. Durand	-	Phylogeny	*Liza grandisquamis*	*Parachelon grandisquamis*	M
HM208833	Ls	-	La Goulette, Tunisia	-	H. Blel	-	Phylogeny	*Liza saliens*	*Chelon saliens*	M
HM208834	38La	-	Morocco	-	A. Pariselle	-	Phylogeny	*Liza ramado*	*Chelon ramado*	M
HM208835	41La	-	Agadir, Morocco	-	A. Pariselle	-	Phylogeny	*Liza aurata*	*Chelon auratus*	M
HM208836	43La	-	North East Atlantic, Mediterranean Sea	-	-	-	Phylogeny	*Liza aurata*	*Chelon auratus*	M
HM208837	45Cla	-	North East Atlantic, Mediterranean Sea	-	-	-	Phylogeny	*Chelon labrosus*	*Chelon labrosus*	M
HM208838	46Cla	-	North East Atlantic, Mediterranean Sea	-	-	-	Phylogeny	*Chelon labrosus*	*Chelon labrosus*	M
HM208839	50Lra	-	North East Atlantic, Mediterranean Sea	-	-	-	Phylogeny	*Liza ramado*	*Chelon ramado*	M
HM208840	52Lra	-	Morocco	-	A. Pariselle	-	Phylogeny	*Liza ramado*	*Chelon ramado*	M
HM208841	56Mba	-	West Africa	-	-	-	Phylogeny	*Mugil bananensis*	*Mugil bananensis*	M
HM208842	60Mba	-	Ebrie Lagoon, Ivory Coast	-	B. Gourene	-	Phylogeny	*Mugil bananensis*	*Mugil bananensis*	M
HM208843	63Mba	-	Ebrie Lagoon, Ivory Coast	-	B. Gourene	-	Phylogeny	*Mugil bananensis*	*Mugil bananensis*	M
HM208844	64NEMce	-	North East Atlantic, Mediterranean Sea	-	-	-	Phylogeny	*Mugil cephalus*	*Mugil cephalus*	M
HM208845	67NEMce	-	Merja Zerga, Morocco	-	A. Pariselle	-	Phylogeny	*Mugil cephalus*	*Mugil cephalus*	M
HM208846	74WAMce	-	West Africa	-	-	-	Phylogeny	*Mugil ashanteensis*	*Mugil* sp. J	M
HM208847	75WAMce	-	West Africa	-	-	-	Phylogeny	*Mugil ashanteensis*	*Mugil* sp. J	M
HM208848	81WAMce	-	Cunene River, Angola	-	S. Lamberth	-	Phylogeny	*Mugil ashanteensis*	*Mugil* sp. J	M
HM208849	84WAMce	-	Nokoue Lagoon, Benin	-	P. Laleye	-	Phylogeny	*Mugil ashanteensis*	*Mugil* sp. J	M
HM208850	87WAMce	-	Iwic, Mauritania	-	M. Bernardon	-	Phylogeny	*Mugil ashanteensis*	*Mugil* sp. J	M
HM208851	99Mcu	-	West Africa	-	-	-	Phylogeny	*Mugil metzelaari*	*Mugil* sp. M	M
HM208852	104Mcu	-	Nokoue Lagoon, Benin	-	P. Laleye	-	Phylogeny	*Mugil metzelaari*	*Mugil* sp. M	M
HM208853	118Mca	-	Morocco and Senegal	-	-	-	Phylogeny	*Mugil capurrii*	*Mugil capurrii*	M
HM208854	122Mca	-	Lome fish market, Togo	-	J.-F. Trape	-	Phylogeny	*Mugil capurrii*	*Mugil capurrii*	M
HM208855	Ola	-	La Goulette, Tunisia	-	H. Blel	-	Phylogeny	*Oedalechilus labeo*	*Oedalechilus labeo*	M
HQ024977	-	FDA 4-33	Market sample, Washington DC, USA	-	-	-	Barcoding	*Mugil cephalus*	*Mugil* sp. B	M
HQ024978	-	FDA 3-33	Market sample, Washington DC, USA	-	-	-	Barcoding	*Mugil cephalus*	*Mugil* sp. B	M
HQ024979	-	FDA 2-33	Market sample, Washington DC, USA	-	-	-	Barcoding	*Mugil cephalus*	*Mugil* sp. B	M

HQ024980	-	FDA 1-33	Market sample, Washington DC, USA	-	-	-	Barcoding	*Mugil cephalus*	*Mugil* sp. B	M
HQ131880	Agmo	-	Caribbean Sea	-	-	-	Phylogeny	*Agonostomus monticola*	*Dajaus monticola*	M
HQ131881	Jopi	-	Changuinola River, Boca del Toro, Panama	-	M. Nirchio	-	Phylogeny	*Joturus pichardi*	*Joturus pichardi*	M
HQ131882	44La	-	Dakhla, Morocco	-	A. Pariselle	-	Phylogeny	*Liza aurata*	*Chelon auratus*	M
HQ131883	10Ldu	-	Bissau, Bissau Guinea	-	J.-D. Durand	-	Phylogeny	*Liza dumerili*	*Chelon dumerili*	M
HQ131884	92NWAMce	-	Charleston, USA	-	I. de Buron	-	Phylogeny	*Mugil cephalus*	*Mugil* sp. B	M
HQ131885	93NWAMce	-	Laguna Madre, Mexico	-	F. Garcia de Leon	-	Phylogeny	*Mugil cephalus*	*Mugil* sp. B	M
HQ131886	107Mcu	-	West Atlantic	-	-	-	Phylogeny	*Mugil curema*	*Mugil curema*	M
HQ131887	108Mcu	-	Guanaja Island, Honduras	-	Kreiser	-	Phylogeny	*Mugil curema*	*Mugil curema*	M
HQ131888	WAMcu	-	West Africa	-	-	-	Phylogeny	*Mugil curema*	*Mugil* sp. M	M
HQ131889	Mho	-	Belize	-	Belize Workshop participants	-	Phylogeny	*Mugil hospes*	*Mugil* sp. R	M
HQ131890	Minc1	-	Kourou, French Guiana	-	R. Vigouroux	-	Phylogeny	*Mugil incilis*	*Mugil incilis*	M
HQ131891	Minc2	-	Kourou, French Guiana	-	R. Vigouroux	-	Phylogeny	*Mugil incilis*	*Mugil incilis*	M
HQ131892	417-Mc-SMNH3	-	Arroyo Zanja, Uruguay	21 Feb. 2007	S. Kullander	-	Phylogeny	*Mugil curema*	*Mugil curema*	M
HQ149082	YM17	-	Japan	-	-	Shen et al. 2011	Phylogeography	*Mugil cephalus*	*Mugil* sp. C	M
HQ149083	YM10	-	Japan	-	-	Shen et al. 2011	Phylogeography	*Mugil cephalus*	*Mugil* sp. C	M
HQ149710	347	-	Charleston, South Carolina, USA	09 May 2005	B. Roumillat	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. B	-
HQ149711	344	-	Indian River, Florida, USA	01 June 2005	R. Paperno	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. B	-
HQ149712	295	-	Kourou, French Guyana	13 Jan. 2007	R. Vigouroux	Durand et al. 2012a	Phylogeny	*Mugil liza*	*Mugil liza*	-
HQ149713	298	UDOV-89	La Restiga, Margarita Island, Venezuela	26 June 2004	M. Nirchio	Durand et al. 2012a	Phylogeny	*Mugil liza*	*Mugil liza*	-
HQ149885	-	NPPF1155	Nayband National Park, Bushehr, Iran (27.40°N 52.60°E)	15 Dec. 2009	H. Asgharian	Asgharian et al. 2011	Barcoding	*Mugilidae sp.*	*Crenimugil* sp. B	u
HQ149965	-	NPPF1167	Nayband National Park, Bushehr, Iran (27.40°N 52.60°E)	15 Dec. 2009	H. Asgharian	Asgharian et al. 2011	Barcoding	*Valamugil buchanani*	*Crenimugil* sp. A	X
HQ285928	-	ECAM780	La Restinga Lagoon, Venezuela	-	M. Nirchio	Hett et al. 2011	Barcoding	*Mugil incilis*	*Mugil incilis*	M
HQ285929	-	ECAM782	La Restinga Lagoon, Venezuela	-	M. Nirchio	Hett et al. 2011	Barcoding	*Mugil incilis*	*Mugil incilis*	M
HQ285930	-	ECAM785	La Restinga Lagoon, Venezuela	-	M. Nirchio	Hett et al. 2011	Barcoding	*Mugil incilis*	*Mugil incilis*	M
HQ654717	-	Lmel4	Talisay, Taal Lake, Calabrazon, Philipinnes	14 Aug. 2010	J. Quilang	Aquilino et al. 2011	Barcoding	*Liza melinoptera*	*Planiliza* sp. G	u
HQ654718	-	Lmel3	Talisay, Taal Lake, Calabrazon, Philipinnes	14 Aug. 2010	J. Quilang	Aquilino et al. 2011	Barcoding	*Liza melinoptera*	*Planiliza* sp. G	u
HQ654719	-	Lmel2	Talisay, Taal Lake, Calabrazon, Philipinnes	14 Aug. 2010	J. Quilang	Aquilino et al. 2011	Barcoding	*Liza melinoptera*	*Planiliza* sp. G	u
HQ654720	-	Lmel1	Talisay, Taal Lake, Calabrazon, Philipinnes	14 Aug. 2010	J. Quilang	Aquilino et al. 2011	Barcoding	*Liza melinoptera*	*Planiliza* sp. G	u
HQ654721	-	Lsub1	Talisay, Taal Lake, Calabrazon, Philipinnes	14 Aug. 2010	J. Quilang	Aquilino et al. 2011	Barcoding	*Liza subviridis*	*Planiliza subviridis*	M
HQ682701	-	Lsub4-LdB	Aplaya, Laguna de Bay, Calabarzon, Philippines	-	J. Quilang	Aquino et al. 2011	Barcoding	*Liza subviridis*	*Planiliza subviridis*	M
HQ682702	-	Lsub3-LdB	Aplaya, Laguna de Bay, Calabarzon, Philippines	-	J. Quilang	Aquino et al. 2011	Barcoding	*Liza subviridis*	*Planiliza subviridis*	M
HQ682703	-	Lsub2-LdB	Aplaya, Laguna de Bay, Calabarzon, Philippines	-	J. Quilang	Aquino et al. 2011	Barcoding	*Liza subviridis*	*Planiliza subviridis*	M
HQ682704	-	Lsub1-LdB	Aplaya, Laguna de Bay, Calabarzon, Philippines	-	J. Quilang	Aquino et al. 2011	Barcoding	*Liza subviridis*	*Planiliza subviridis*	M
JF493283	-	ADC222.1-2	Kosi Lakes, KwaZulu-Natal, South Africa	19 May 2004	S. Weerts	-	Barcoding	*Crenimugil crenilabis*	*Crenimugil crenilabis*	M
JF493284	-	ADC222.1-1	Kosi Lakes, KwaZulu-Natal, South Africa	19 May 2004	S. Weerts	-	Barcoding	*Crenimugil crenilabis*	*Crenimugil crenilabis*	M
JF493796	-	ADC222.2-3	Sezela Estuary, KwaZulu-Natal, South Africa	04 Dec. 2003	A.D. Connell	-	Barcoding	*Liza alata*	*Planiliza alata*	M
JF493797	-	ADC222.2-2	Sezela Estuary, KwaZulu-Natal, South Africa	04 Dec. 2003	A.D. Connell	-	Barcoding	*Liza alata*	*Planiliza alata*	M
JF493798	-	ADC222.2-1	Sezela Estuary, KwaZulu-Natal, South Africa	04 Dec. 2003	A.D. Connell	-	Barcoding	*Liza alata*	*Planiliza alata*	M
JF493799	-	ADC222.3-1	Mhlanga Estuary, KwaZulu-Natal, South Africa	13 Aug. 2003	A.D. Connell	-	Barcoding	*Liza dumerili*	*Chelon* sp. B	M
JF493800	-	ADC222.3-3	Mhlanga Estuary, KwaZulu-Natal, South Africa	13 Aug. 2003	A.D. Connell	-	Barcoding	*Liza dumerili*	*Chelon* sp. B	M
JF493801	-	ADC222.3-2	Mhlanga Estuary, KwaZulu-Natal, South Africa	13 Aug. 2003	A.D. Connell	-	Barcoding	*Liza dumerili*	*Chelon* sp. B	M
JF493802	-	ADC08222.5	Pomene, Mozambique	01 May 2008	A.D. Connell	-	Barcoding	*Liza macrolepis*	*Chelon* sp. A	u
JF493803	-	Smith222.6#1	Mlalazi Estuary, KwaZulu-Natal, South Africa	20 Sep. 2005	A.D. Connell	-	Barcoding	*Liza melinoptera*	*Planiliza melinoptera*	M
JF493804	-	Smith222.6#2	Mlalazi Estuary, KwaZulu-Natal, South Africa	20 Sep. 2005	A.D. Connell	-	Barcoding	*Liza melinoptera*	*Chelon* sp. A	u
JF493805	-	Smith222.4#3.1	St Lucia, South Africa	11 Feb. 2006	A.D. Connell	-	Barcoding	*Liza melinoptera*	*Planiliza melinoptera*	M
JF493806	-	Smith222.4#4.1	St Lucia, South Africa	12 Feb. 2006	A.D. Connell	-	Barcoding	*Liza melinoptera*	*Planiliza melinoptera*	M
JF493807	-	Smith222.4#1.1	St Lucia, South Africa	13 Feb. 2006	A.D. Connell	-	Barcoding	*Liza melinoptera*	*Planiliza melinoptera*	M
JF493808	-	Smith222.4#2.1	St Lucia, South Africa	14 Feb. 2006	A.D. Connell	-	Barcoding	*Liza melinoptera*	*Planiliza melinoptera*	M
JF493809	-	ADC222.7-1	Danger Point, Western Cape, South Africa	14 Oct. 2004	A. Bok	-	Barcoding	*Liza richardsonii*	*Chelon richardsonii*	M
JF493810	-	Smith222.7#5.1	Table Bay, South Africa	01 Oct. 2004	G. Beukes	-	Barcoding	*Liza richardsonii*	*Chelon richardsonii*	M
JF493811	-	Smith222.7#3.1	Table Bay, South Africa	01 Oct. 2004	G. Beukes	-	Barcoding	*Liza richardsonii*	*Chelon richardsonii*	M
JF493812	-	ADC222.7-2	Danger Point, Western Cape, South Africa	01 Oct. 2004	A. Bok	-	Barcoding	*Liza richardsonii*	*Chelon richardsonii*	M
JF493813	-	ADC222.8-1	Inyoni Rocks, KwaZulu-Natal, South Africa	03 June 2004	A.D. Connell	-	Barcoding	*Liza tricuspidens*	*Chelon tricuspidens*	M
JF493905	-	ADC222.10-2	Mhlanga Estuary, KwaZulu-Natal, South Africa	19 Aug. 2004	A.D. Connell	-	Barcoding	*Mugil cephalus*	*Mugil* sp. E	M
JF493906	-	ADC222.10-1	Mhlanga Estuary, KwaZulu-Natal, South Africa	19 Aug. 2004	A.D. Connell	-	Barcoding	*Mugil cephalus*	*Mugil* sp. E	M
JF493907	-	ADC222.10-3	Mhlanga Estuary, KwaZulu-Natal, South Africa	19 Aug. 2004	A.D. Connell	-	Barcoding	*Mugil cephalus*	*Mugil* sp. E	M
JF493950	-	ADC222.11-8	Mbezane Estuary, KwaZulu-Natal, South Africa	13 Jan. 2005	A.D. Connell	-	Barcoding	*Myxus capensis*	*Pseudomyxus capensis*	M
JF493952	-	ADC222.11-7	Mbezane Estuary, KwaZulu-Natal, South Africa	13 Jan. 2005	A.D. Connell	-	Barcoding	*Myxus capensis*	*Pseudomyxus capensis*	M
JF494774	-	ADC222.12-2	Richard's Bay, KwaZulu-Natal, South Africa	21 Oct. 2003	A.D. Connell	-	Barcoding	*Valamugil buchanani*	*Crenimugil* sp. A	X
JF494775	-	ADC222.12-1	Mpenjati Estuary, KwaZulu-Natal, South Africa	14 Jan. 2005	A.D. Connell	-	Barcoding	*Valamugil buchanani*	*Crenimugil buchanani*	M
JF494776	-	ADC222.13-1	Mhlanga Estuary, KwaZulu-Natal, South Africa	13 Aug. 2003	A.D. Connell	-	Barcoding	*Valamugil cunnesius*	*Osteomugil* sp. B	M

JF494777	-	ADC222.14-1	Mpenjati Estuary, KwaZulu-Natal, South Africa	13 Jan. 2005	A.D. Connell	-	Barcoding	*Valamugil robustus*	*Osteomugil robustus*	M
JF494780	-	ADC222.15-2	Mbezane Estuary, KwaZulu-Natal, South Africa	14 Jan. 2005	A.D. Connell	-	Barcoding	*Valamugil seheli*	*Osteomugil* sp. B	X
JF494781	-	ADC222.15-1	Mhlanga Estuary, KwaZulu-Natal, South Africa	13 Aug. 2003	A.D. Connell	-	Barcoding	*Valamugil seheli*	*Osteomugil* sp. B	X
JF952795 [b]		-	Arasaki, Yokosuka, Kanto, Japan (35.00°N 139.50°E)	13 Sep. 2005	S. Chow	Zhang and Hanner 2011	Barcoding	*Mugil cephalus*	*Seriola* sp.	X
JF952796 [b]	-	BOR1.1	Arasaki, Yokosuka, Kanto, Japan (35.00°N 139.50°E)	13 Sep. 2005	S. Chow	Zhang and Hanner 2011	Barcoding	*Mugil cephalus*	*Seriola* sp.	X
JN021221	-	Lmac2	10.6985 N 121.981 E, Antique, Hamtic River, Philippines	12 Oct. 2010	J. Quilang, J. Tango	-	Barcoding	*Liza macrolepis*	*Planiliza sp. H*	M
JN021222	-	Lmac1	10.6985 N 121.981 E, Antique, Hamtic River, Philippines	12 Oct. 2010	J. Quilang, J. Tango	-	Barcoding	*Liza macrolepis*	*Planiliza sp. H*	M
JN228383	-	PuDOSMB13	Puducherry region, India	Jan. 2011	V. Sachithanandam et al.	-	Barcoding	*Liza macrolepis*	*Planiliza subviridis*	X
JN242565	-	MBCSC:LCG116405	South China Sea (23.45°N 117.38°E)	04 June 2011	J. Zhang	Zhang and Hanner 2012	Barcoding	*Mugil cephalus*	*Mugil* sp. C	M
JN242566	-	MBCSC:XS1169156	South China Sea (17.31°N 113.28°E)	09 June 2011	J. Zhang	Zhang and Hanner 2012	Barcoding	*Mugil cephalus*	*Mugil* sp. C	M
JN242567	-	MBCSC:ZP1141255	South China Sea (21.33°N 111.98°E)	12 Apr. 2011	J. Zhang	Zhang and Hanner 2012	Barcoding	*Mugil cephalus*	*Mugil* sp. C	M
JN242568	-	MBCSC:LCG116459	South China Sea (23.45°N 117.38°E)	04 June 2011	J. Zhang	Zhang and Hanner 2012	Barcoding	*Mugil cephalus*	*Mugil* sp. C	M
JN242569	-	MBCSC:ZP1141222	South China Sea (21.33°N 111.98°E)	12 Apr. 2011	J. Zhang	Zhang and Hanner 2012	Barcoding	*Mugil cephalus*	*Mugil* sp. C	M
JN242570	-	MBCSC:ZP1141223	South China Sea (21.33°N 111.98°E)	12 Apr. 2011	J. Zhang	Zhang and Hanner 2012	Barcoding	*Mugil cephalus*	*Mugil* sp. C	M
JN242571	-	MBCSC:ZP11412147	South China Sea (21.33°N 111.98°E)	12 Apr. 2011	J. Zhang	Zhang and Hanner 2012	Barcoding	*Mugil cephalus*	*Mugil* sp. C	M
JN242615	-	MBCSC:BH1122649	South China Sea (21.23°N 109.38°E)	26 Feb. 2011	J. Zhang	Zhang and Hanner 2012	Barcoding	*Liza haematocheila*	*Planiliza haematocheila*	M
JN242616	-	MBCSC:BH1122650	South China Sea (21.23°N 109.38°E)	26 Feb. 2011	J. Zhang	Zhang and Hanner 2012	Barcoding	*Liza haematocheila*	*Planiliza haematocheila*	M
JN242617	-	MBCSC:XS116998	South China Sea (17.31°N 113.28°E)	09 June 2011	J. Zhang	Zhang and Hanner 2012	Barcoding	*Liza haematocheila*	*Planiliza haematocheila*	M
JN242618	-	MBCSC:ZH1151821	South China Sea (21.13°N 113.42°E)	18 May 2011	J. Zhang	Zhang and Hanner 2012	Barcoding	*Liza haematocheila*	*Planiliza haematocheila*	M
JN242619	-	MBCSC:LCG1141841	South China Sea (23.50°N 117.67°E)	18 Apr. 2011	J. Zhang	Zhang and Hanner 2012	Barcoding	*Liza haematocheila*	*Planiliza haematocheila*	M
JN242620	-	MBCSC:ZP1141250	South China Sea (21.33°N 111.98°E)	12 Apr. 2011	J. Zhang	Zhang and Hanner 2012	Barcoding	*Liza haematocheila*	*Planiliza haematocheila*	M
JN813098	-	IOCASFY_Lh_001	Rongcheng Bay, China	-	Z. Wu, F. You	unpubl.	Barcoding	*Liza haematocheila*	*Planiliza haematocheila*	M
JQ045776	Vellar1	-	Vellar Estuary, India	-	M. Ashiq Ur Rahman	Ashiq Ur Rahman et al. 2013	Barcoding	*Liza tade*	*Osteomugil* sp.	X
JQ045777	Vellar2	-	Vellar Estuary, India	-	M. Ashiq Ur Rahman	Ashiq Ur Rahman et al. 2013	Barcoding	*Moolgarda cunnesius*	*Osteomugil cunnesius*	M
JQ045778	Vellar3	-	Vellar Estuary, India	-	M. Ashiq Ur Rahman	Ashiq Ur Rahman et al. 2013	Barcoding	*Valamugil speigleri*	*Osteomugil* sp.	u
JQ045779	Vellar4	-	Vellar Estuary, India	-	M. Ashiq Ur Rahman	Ashiq Ur Rahman et al. 2013	Barcoding	*Liza parsia*	*Osteomugil perusii*	X
JQ045780	Vellar5	-	Vellar Estuary, India	-	M. Ashiq Ur Rahman	Ashiq Ur Rahman et al. 2013	Barcoding	*Ellochelon vaigiensis*	*Planiliza subviridis*	X
JQ045781	Vellar6	-	Vellar Estuary, India	-	M. Ashiq Ur Rahman	Ashiq Ur Rahman et al. 2013	Barcoding	*Moolgarda seheli*	*Crenimugil* sp. C	M
JQ045782	Vellar7	-	Vellar Estuary, India	-	M. Ashiq Ur Rahman	Ashiq Ur Rahman et al. 2013	Barcoding	*Chelon subviridis*	*Planiliza subviridis*	M
JQ045783	Vellar8	-	Vellar Estuary, India	-	M. Ashiq Ur Rahman	Ashiq Ur Rahman et al. 2013	Barcoding	*Mugil cephalus*	*Mugil* sp. B	M
JQ045784	Vellar9	-	Vellar Estuary, India	-	M. Ashiq Ur Rahman	Ashiq Ur Rahman et al. 2013	Barcoding	*Chelon planiceps*	*Planiliza* sp.	M
JQ045785	Vellar10	-	Vellar Estuary, India	-	M. Ashiq Ur Rahman	Ashiq Ur Rahman et al. 2013	Barcoding	*Chelon macrolepis*	*Planiliza subviridis*	X
JQ060394	023	MNHN 2006-0614	Koundré River, Anjouan, Comores	03 Nov. 2005	P. Keith, G. Marquet	Durand et al. 2012b	Phylogeny	*Agonostomus catalai*	*Agonostomus catalai*	-
JQ060395	026	UABC-2052	Río Presidio, Sinaloa, Mexico	13 Sep. 2008	S. Sánchez et al.	Durand et al. 2012b	Phylogeny	*Agonostomus monticola*	*Dajaus* sp. A	-
JQ060396	028	NRM 53460	Rio Jiboa, El Salvador	22 Feb. 2006	S. Kullander	Durand et al. 2012b	Phylogeny	*Agonostomus monticola*	*Dajaus* sp. A	-
JQ060397	030	NRM 53520	Rio El Zonte, El Salvador	25 Feb. 2006	S. Kullander	Durand et al. 2012b	Phylogeny	*Agonostomus monticola*	*Dajaus* sp. A	-
JQ060401	032	UDOV 314	Changuinola River, Boca del Toro, Panama	15 Apr. 2005	M. Nirchio	Durand et al. 2012b	Phylogeny	*Agonostomus monticola*	*Dajaus* sp. A	-
JQ060402	033	-	Bourceau, Guadeloupe	Jan.-Apr. 2008	M. Louis	Durand et al. 2012b	Phylogeny	*Agonostomus monticola*	*Dajaus* sp. B	-
JQ060398	031a	UDOV 700	La Trilla River, Aragua State, Venezuela	09 May 2007	M. Nirchio	Durand et al. 2012b	Phylogeny	*Agonostomus monticola*	*Dajaus* sp. B	-
JQ060399	031b	STRI 21827	La Trilla River, Aragua State, Venezuela	-	M. Nirchio	Durand et al. 2012b	Phylogeny	*Agonostomus monticola*	*Dajaus* sp. B	-
JQ060400	031c	-	Guanaja Isld., Honduras	30 June 2005	W.A. Matamoros	Durand et al. 2012b	Phylogeny	*Agonostomus monticola*	*Dajaus* sp. B	-
JQ060403	035	UABC-2052	Río Presidio, Sinaloa, Mexico	13 Sep. 2008	S. Sánchez et al.	Durand et al. 2012b	Phylogeny	*Agonostomus monticola*	*Dajaus* sp. B	-
JQ060405	010	-	Tauvanga Harbor, New Zeland	10 Oct. 2006	J. Boubee	Durand et al. 2012b	Phylogeny	*Aldrichetta forsteri*	*Aldrichetta forsteri*	-
JQ060407	011	-	Trou Bleu River, New Caledonia	24 May 2007	C. Pöllabauer	Durand et al. 2012b	Phylogeny	*Cestraeus oxyrhyncus*	*Cestraeus oxyrhyncus*	-
JQ060406	012	-	Cagayan Province, Philippines	01 June 2008	B.W. Jamandre	Durand et al. 2012b	Phylogeny	*Cestraeus goldiei*	*Cestraeus goldiei*	-
JQ060408	002	UABC-1838	Los Cerritos, Mexico	18 Apr. 2007	A. Ramirez	Durand et al. 2012b	Phylogeny	*Chaenomugil proboscideus*	*Chaenomugil proboscideus*	-
JQ060409	002c	-	La Paz, Mexico	01 May 2010	F.J. Garcia de Leon	Durand et al. 2012b	Phylogeny	*Chaenomugil proboscideus*	*Chaenomugil proboscideus*	-
JQ060410	002d	-	La Paz, Mexico	01 May 2010	F.J. Garcia de Leon	Durand et al. 2012b	Phylogeny	*Chaenomugil proboscideus*	*Chaenomugil proboscideus*	-
JQ060412	180	-	Goulette, Tunisia	22 Dec. 2005	H. Blel	Durand et al. 2012b	Phylogeny	*Chelon labrosus*	*Chelon labrosus*	-
JQ060484	178	-	Agadir, Morocco	-	A. Pariselle	Durand et al. 2012b	Phylogeny	*Chelon labrosus*	*Chelon labrosus*	-
JQ060411	179b	-	Khnifiss, Morocco	Mar. 2010	A. Pariselle	Durand et al. 2012b	Phylogeny	*Chelon labrosus*	*Chelon labrosus*	-
JQ060414	124	-	Boulouparis, New Caledonia	11 Aug. 2007	P. Borsa	Durand et al. 2012b	Phylogeny	*Chelon macrolepis*	*Planiliza* sp. H	-
JQ060415	132	-	Koné, New Caledonia	25 Aug. 2007	P. Borsa	Durand et al. 2012b	Phylogeny	*Chelon macrolepis*	*Planiliza* sp. H	-
JQ060416	133	MNHN 2009-0803	Nouméa, New Caledonia	08 Mar. 2007	P. Borsa	Durand et al. 2012b	Phylogeny	*Chelon macrolepis*	*Planiliza* sp. H	-
JQ060417	135	MNHN 2009-0805	SW lagoon, New Caledonia	01 Apr. 2007	P. Borsa	Durand et al. 2012b	Phylogeny	*Chelon macrolepis*	*Planiliza* sp. H	-
JQ060418	136	MNHN 2009-0806	SW lagoon, New Caledonia	01 Apr. 2007	P. Borsa	Durand et al. 2012b	Phylogeny	*Chelon macrolepis*	*Planiliza* sp. H	-
JQ060419	137	NMNS-P76044	Atetsu Bay, Ryukyu Islands, Japan	16 Nov. 2006	K. Shibukawa	Durand et al. 2012b	Phylogeny	*Chelon macrolepis*	*Planiliza* sp. H	-
JQ060420	138	NMMBP10785	Taisi, Taiwan	15 June 2008	K.-N. Shen	Durand et al. 2012b	Phylogeny	*Chelon macrolepis*	*Planiliza* sp. H	-
JQ060421	143	MNHN 2009-0802	Viti Levu, Fiji	19 Sep. 2008	P. Borsa	Durand et al. 2012b	Phylogeny	*Chelon macrolepis*	*Planiliza* sp. H	-
JQ060424	146	-	Eydhafushi, Baa atoll, Maldives	28 June 2008	P. Borsa, S. Andréfouët	Durand et al. 2012b	Phylogeny	*Chelon macrolepis*	*Planiliza* sp. H	-
JQ060425	150	SAIAB-74455	Mlalazi estuary, South Africa	May 2004	P. Renzo	Durand et al. 2012b	Phylogeny	*Chelon macrolepis*	*Planiliza macrolepis*	-
JQ060426	151	SAIAB-77876	Port Launay, Seychelles	19 Apr. 2005	P.C. Heemstra et al.	Durand et al. 2012b	Phylogeny	*Chelon macrolepis*	*Planiliza macrolepis*	-

JQ060422	144	MNHN ICOS-00270	Ra's al-Hadd, Oman	22 Mar. 2009	P. Béarez	Durand et al. 2012b	Phylogeny	*Chelon macrolepis*	*Planiliza macrolepis*	-
JQ060423	145	MNHN 2010-0027	Ra's al-Hadd, Oman	22 Mar. 2009	P. Béarez	Durand et al. 2012b	Phylogeny	*Chelon macrolepis*	*Planiliza macrolepis*	-
JQ060413	154	-	Negombo lagoon, Sri Lanka	2007	H. Ashanti	Durand et al. 2012b	Phylogeny	*Chelon macrolepis*	*Planiliza* sp. H	-
JQ060427	109	-	Viti Levu, Fiji	19 Sep. 2008	P. Borsa	Durand et al. 2012b	Phylogeny	*Chelon melinopterus*	*Planiliza melinoptera*	-
JQ060428	111	-	Viti Levu, Fiji	19 Sep. 2008	P. Borsa	Durand et al. 2012b	Phylogeny	*Chelon melinopterus*	*Planiliza melinoptera*	-
JQ060430	175	NRM-58400	Kyaiko market, Myanmar	15 Mar. 2008	F. Fang, Thein Win	Durand et al. 2012b	Phylogeny	*Chelon planiceps*	*Planiliza* sp. I	-
JQ060431	176	NRM-58557	Kyaiko market, Myanmar	15 Mar. 2008	F. Fang, Thein Win	Durand et al. 2012b	Phylogeny	*Chelon planiceps*	*Planiliza* sp. I	-
JQ060429	122	NTM S.15537-001	Middle part beach, West Alligator Head, NT, Australia	09 June 2001	H. Larson	Durand et al. 2012b	Phylogeny	*Chelon planiceps*	*Planiliza* sp. F	-
JQ060433	069	-	Segara Amahan lagoon, Java, Indonesia	July 2008	S. Kleinertz, SPICE II project	Durand et al. 2012b	Phylogeny	*Chelon subviridis*	*Planiliza subviridis*	-
JQ060434	070	-	Negombo lagoon, Sri Lanka	2007	H. Ashanti	Durand et al. 2012b	Phylogeny	*Chelon subviridis*	*Planiliza subviridis*	-
JQ060432	064	NMMBP10796	Cigu, Taiwan	13 Nov. 2008	K.-N. Shen	Durand et al. 2012b	Phylogeny	*Chelon subviridis*	*Planiliza subviridis*	-
JQ060435	185	MNHN 2009-0808	Moruroa atoll, French Polynesia	June 2006	P. Borsa et al.	Durand et al. 2012b	Phylogeny	*Crenimugil crenilabis*	*Crenimugil crenilabis*	-
JQ060436	187	-	Adhoo atoll, Maldives	28 June 2008	P. Borsa	Durand et al. 2012b	Phylogeny	*Crenimugil crenilabis*	*Crenimugil crenilabis*	-
JQ060437	190	MNHN 2008-1002	Moorea, Iles du Vent French Polynesia	24 Mar. 2006	Biocode project	Durand et al. 2012b	Phylogeny	*Crenimugil crenilabis*	*Crenimugil crenilabis*	-
JQ060438	191	-	Tahiti, Iles du Vent French Polynesia	Jul.-Aug. 2008	A. Stein	Durand et al. 2012b	Phylogeny	*Crenimugil crenilabis*	*Crenimugil crenilabis*	-
JQ060439	192	MNHN 2009-1680	Tuamotu, French Polynesia	Feb. 2009	A. Stein	Durand et al. 2012b	Phylogeny	*Crenimugil crenilabis*	*Crenimugil crenilabis*	-
JQ060440	193	SAIAB-86172	Saipan, Mariana Islands	24 May 2003	K.A. Moots et al.	Durand et al. 2012b	Phylogeny	*Crenimugil crenilabis*	*Crenimugil crenilabis*	-
JQ060441	194	-	Loop Is., Chesterfield islands, Coral Sea	22 Oct. 2008	P. Borsa	Durand et al. 2012b	Phylogeny	*Crenimugil crenilabis*	*Crenimugil crenilabis*	-
JQ060442	195	SAIAB-77948	Port Launay (SE beach), Seychelles	19 Apr. 2005	P.C. Heemstra et al.	Durand et al. 2012b	Phylogeny	*Crenimugil crenilabis*	*Crenimugil crenilabis*	-
JQ060443	046	CSIRO-H4307-01	Unspecified location, Australia	31 July 1996	G. Yearsley	Durand et al. 2012b	Phylogeny	*Ellochelon vaigiensis*	*Ellochelon* sp. A	-
JQ060444	051	-	Batanta Island, West Papua	04 Dec. 2007	P. Borsa	Durand et al. 2012b	Phylogeny	*Ellochelon vaigiensis*	*Ellochelon vaigiensis*	-
JQ060445	053	-	Tahiti, French Polynesia	01 Aug. 2008	A. Stein	Durand et al. 2012b	Phylogeny	*Ellochelon vaigiensis*	*Ellochelon vaigiensis*	-
JQ060446	022	STRI 21850	Changuinola River, Boca del Toro, Panama	-	-	Durand et al. 2012b	Phylogeny	*Joturus pichardi*	*Joturus pichardi*	-
JQ060447	061	-	Tigris River, Turkey	27 Apr. 2005	E. Ünlü	Durand et al. 2012b	Phylogeny	*Liza abu*	*Planiliza abu*	-
JQ060448	057x	NMMBP11540	Yunlin, Taiwan	21 Feb. 2008	K.-N. Shen	Durand et al. 2012b	Phylogeny	*Liza affinis*	*Planiliza affinis*	-
JQ060451	165	SAIAB-74457	Sezela estuary, South Africa	May 2005	A.D. Connell	Durand et al. 2012b	Phylogeny	*Liza alata*	*Liza alata*	-
JQ060452	165b	-	East K'monde estuary, South Africa	02 Feb. 2010	P. Cowley	Durand et al. 2012b	Phylogeny	*Liza alata*	*Liza alata*	-
JQ060449	162	NTM S.16482-001	Charlie's Creek, Daly River NT, Australia	12 June 2007	H. Larson	Durand et al. 2012b	Phylogeny	*Liza alata*	*Liza ordensis*	-
JQ060450	164	NTM S.16483-001	Near Crocodile Creek, Daly River NT, Australia	13 June 2007	H. Larson	Durand et al. 2012b	Phylogeny	*Liza alata*	*Liza ordensis*	-
JQ060453	037	CSIRO-H4307-04	unknown location, Australia	25 July 2005	G. Yearsley via Raptis and Sons, Colmslie	Durand et al. 2012b	Phylogeny	*Liza argentea*	*Aldrichetta argentea*	-
JQ060454	039	AMS I-43204-011	Port Hacking, NSW, Australia	July 1997	B. Pease et al.	Durand et al. 2012b	Phylogeny	*Liza argentea*	*Aldrichetta argentea*	-
JQ060455	041	-	Brisbane, Australia	-	W. Knibb	Durand et al. 2012b	Phylogeny	*Liza argentea*	*Aldrichetta argentea*	-
JQ060456	168	-	Goulette, Tunisia	Apr. 2003	H. Blel	Durand et al. 2012b	Phylogeny	*Liza aurata*	*Chelon auratus*	-
JQ060457	169	-	Agadir, Morocco	-	A. Pariselle	Durand et al. 2012b	Phylogeny	*Liza aurata*	*Chelon auratus*	-
JQ060458	171b	-	Dakhla, Western Sahara	Mar. 2010	A. Pariselle	Durand et al. 2012b	Phylogeny	*Liza aurata*	*Chelon auratus*	-
JQ060459	171c	-	Khnifiss, Morocco	Mar. 2010	A. Pariselle	Durand et al. 2012b	Phylogeny	*Liza aurata*	*Chelon auratus*	-
JQ060460	171d	-	Khnifiss, Morocco	Mar. 2010	A. Pariselle	Durand et al. 2012b	Phylogeny	*Liza aurata*	*Chelon auratus*	-
JQ060461	054	MNHN 2009-0790	Saloum estuary, Senegal	2008	O. Diouf	Durand et al. 2012b	Phylogeny	*Liza bandialensis*	*Chelon bandialensis*	-
JQ060462	056	-	Bubaque, Bijagos Islds, Bissau Guinea	May 2008	Y. Bettarel	Durand et al. 2012b	Phylogeny	*Liza bandialensis*	*Chelon bandialensis*	-
JQ060463	073	SAIAB-83185	Toubacouta, Saloum estuary, Senegal	06 Mar. 2009	O. Sadio, J. Raffray	Durand et al. 2012b	Phylogeny	*Liza dumerili*	*Chelon dumerili*	-
JQ060464	076	-	St Louis, Senegal	26 Jan. 2008	J.-D. Durand	Durand et al. 2012b	Phylogeny	*Liza dumerili*	*Chelon dumerili*	-
JQ060465	077	-	Fish market, Lome, Togo	19 June 2007	J.-F. Trape	Durand et al. 2012b	Phylogeny	*Liza dumerili*	*Chelon dumerili*	-
JQ060466	078b	-	Fish market, Bissau, Bissau Guinea	04 May 2010	J.-D. Durand	Durand et al. 2012b	Phylogeny	*Liza dumerili*	*Chelon dumerili*	-
JQ060467	079	-	Great Fish River, South Africa	12 May 2005	A.K. Whitfield, J.-D. Durand	Durand et al. 2012b	Phylogeny	*Liza dumerili*	*Chelon* sp. B	-
JQ060468	080	-	Great Fish River, South Africa	12 May 2005	A.K. Whitfield, J.-D. Durand	Durand et al. 2012b	Phylogeny	*Liza dumerili*	*Chelon* sp. B	-
JQ060469	083	MNHN 2009-0730	Toubacouta, Saloum estuary, Senegal	06 Mar. 2009	O. Sadio	Durand et al. 2012b	Phylogeny	*Liza falcipinnis*	*Neochelon falcipinnis*	-
JQ060470	084	-	St Louis, Senegal	26 Jan. 2008	J.-D. Durand	Durand et al. 2012b	Phylogeny	*Liza falcipinnis*	*Neochelon falcipinnis*	-
JQ060471	085	-	St Louis, Senegal	26 Jan. 2008	J.-D. Durand	Durand et al. 2012b	Phylogeny	*Liza falcipinnis*	*Neochelon falcipinnis*	-
JQ060472	086	-	Fish market, Lome, Togo	19 June 2007	J.-F. Trape	Durand et al. 2012b	Phylogeny	*Liza falcipinnis*	*Neochelon falcipinnis*	-
JQ060473	088	-	Saloum, Sénégal	06 Mar. 2009	O. Sadio et al.	Durand et al. 2012b	Phylogeny	*Liza grandisquamis*	*Parachelon grandisquamis*	-
JQ060474	089b	-	Fish market, Bissau, Bissau Guinea	04 May 2010	J.-D. Durand	Durand et al. 2012b	Phylogeny	*Liza grandisquamis*	*Parachelon grandisquamis*	-
JQ060475	090	MNHN 2009-731	Saloum, Sénégal	06 Mar. 2009	O. Sadio	Durand et al. 2012b	Phylogeny	*Liza grandisquamis*	*Parachelon grandisquamis*	-
JQ060476	091	SAIAB-83182	Saloum, Sénégal	06 Mar. 2009	O. Sadio	Durand et al. 2012b	Phylogeny	*Liza grandisquamis*	*Parachelon grandisquamis*	-
JQ060477	095	-	Yunlin, Taiwan	03 Dec. 2007	K.-N. Shen	Durand et al. 2012b	Phylogeny	*Liza haematocheila*	*Planiliza haematocheila*	-
JQ060478	102	NMMBP11541	Yunlin, Taiwan	03 Dec. 2007	K.-N. Shen	Durand et al. 2012b	Phylogeny	*Liza haematocheila*	*Planiliza haematocheila*	-
JQ060479	173	-	Goulette, Tunisia	Apr. 2003	H. Blel	Durand et al. 2012b	Phylogeny	*Liza ramada*	*Chelon ramado*	-
JQ060480	174b	-	Zerga, Morocco	Mar. 2010	A. Pariselle	Durand et al. 2012b	Phylogeny	*Liza ramada*	*Chelon ramado*	-
JQ060481	157	SAIAB-64270	Orange River, Namibia	12 June 2001	J. Koekemoer	Durand et al. 2012b	Phylogeny	*Liza richardsonii*	*Chelon richardsonii*	-
JQ060482	158	-	Great Fish River, South Africa	12 May 2005	A.K. Whitfield, J.-D. Durand	Durand et al. 2012b	Phylogeny	*Liza richardsonii*	*Chelon richardsonii*	-
JQ060483	166	-	Goulette, Tunisia	Apr. 2003	H. Blel	Durand et al. 2012b	Phylogeny	*Liza saliens*	*Chelon saliens*	-
JQ060492	161	SAIAB-78131	Saint Lucia, South Africa	14 May 2005	A.K. Whitfield et al.	Durand et al. 2012b	Phylogeny	*Liza sp.*	*Chelon* sp. A	-
JQ060490	113	-	Al Khobar, Saudia Arabia, Persian Gulf	Nov.-Dec. 2008	Z. Batang, P. Premlal	Durand et al. 2012b	Phylogeny	*Liza sp.*	*Planiliza* sp. A	-

JQ060491	114	-	Al Khobar, Saudia Arabia, Persian Gulf	Nov.-Dec. 2008	Z. Batang, P. Premlal	Durand et al. 2012b	Phylogeny	*Liza sp.*	*Planiliza* sp. A	-
JQ060487	103	-	Pangasinan, Philippines	01 July 2008	B. W. Jamandre	Durand et al. 2012b	Phylogeny	*Liza sp.*	*Planiliza* sp. C	-
JQ060488	107	-	Pangasinan, Philippines	01 July 2008	B. W. Jamandre	Durand et al. 2012b	Phylogeny	*Liza sp.*	*Planiliza* sp. C	-
JQ060485	062	-	Negombo lagoon, Sri Lanka	2007	H. Ashanti	Durand et al. 2012b	Phylogeny	*Liza sp.*	*Planiliza* sp. D	-
JQ060493	062b	NMMBP11557	Ho Chi Minh City, Viet Nam	20 Mar. 2010	W.-J. Chen	Durand et al. 2012b	Phylogeny	*Liza sp.*	*Planiliza* sp. D	-
JQ060486	063	NMMBP10791	Cigu, Taiwan	13 Nov. 2008	K.-N. Shen	Durand et al. 2012b	Phylogeny	*Liza sp.*	*Planiliza* sp. J	-
JQ060494	057b	NMMBP11558	Quang Yen, Viet Nam	21 Mar. 2010	W.-J. Chen	Durand et al. 2012b	Phylogeny	*Liza sp.*	*Planiliza* sp. E	-
JQ060489	108	NMMBP10802	Yilan, Taiwan	22 July 2002	L.-C. Chaung	Durand et al. 2012b	Phylogeny	*Liza sp.*	*Planiliza* sp. G	-
JQ060495	155	-	Sunday estuary, South Africa	08 Aug. 2007	A.K. Whitfield	Durand et al. 2012b	Phylogeny	*Liza tricuspidens*	*Chelon tricuspidens*	-
JQ060498	278	-	Great Fish River, South Africa	12 May 2005	A.K. Whitfield, J.-D. Durand	Durand et al. 2012b	Phylogeny	*Moolgarda cunnesius*	*Osteomugil* sp. B	-
JQ060496	275	AMS-I-33460-016	Beach 1Km S of McGowans Beach, Kalumburu, Australia	06 Sep. 1992	J. Paxton	Durand et al. 2012b	Phylogeny	*Moolgarda cunnesius*	*Osteomugil* sp. A	-
JQ060499	276b	NMMBP11559	Don Son Town, Vietnam	22 Mar. 2010	W.-J. Chen	Durand et al. 2012b	Phylogeny	*Moolgarda cunnesius*	*Osteomugil cunnesius*	-
JQ060497	276	ASIZP0061397	Yunlin, Taiwan	05 May 2002	K.-T. Shao	Durand et al. 2012b	Phylogeny	*Moolgarda cunnesius*	*Osteomugil cunnesius*	-
JQ060500	198	KU:KUI:32523	Saipan, Mariana Islands	24 May 2003	K.A. Moots et. al.	Durand et al. 2012b	Phylogeny	*Moolgarda engeli*	*Osteomugil engeli*	-
JQ060501	200	-	Hawaii	June-Oct. 2008	T.K. Ogawa	Durand et al. 2012b	Phylogeny	*Moolgarda engeli*	*Osteomugil engeli*	-
JQ060502	201	MNHN 2008-0692	Moorea, Iles du Vent, French Polynesia	15 Mar. 2006	S. Planes, Campagne Biocode	Durand et al. 2012b	Phylogeny	*Moolgarda engeli*	*Osteomugil engeli*	-
JQ060503	203	-	Tahiti, Iles du Vent, French Polynesia	01 Aug. 2008	A. Stein	Durand et al. 2012b	Phylogeny	*Moolgarda engeli*	*Osteomugil engeli*	-
JQ060504	264	MNHN 2009-0811	Foué, New Caledonia	18 Aug. 2007	P. Borsa	Durand et al. 2012b	Phylogeny	*Moolgarda perusii*	*Osteomugil perusii*	-
JQ060505	274	NMMBP10798	Taisi, Taiwan	15 June 2008	K.-N. Shen	Durand et al. 2012b	Phylogeny	*Moolgarda perusii*	*Osteomugil perusii*	-
JQ060631	209	-	Eydhafushi, Baa Atoll, Maldives	28 June 2008	P. Borsa, S. Andréfouët	Durand et al. 2012b	Phylogeny	*Moolgarda seheli*	*Crenimugil* sp. A	-
JQ060632	213	-	Viti Levu, Fiji	19 Sep. 2008	P. Borsa	Durand et al. 2012b	Phylogeny	*Moolgarda seheli*	*Crenimugil* sp. A	-
JQ060633	214	-	Viti Levu, Fiji	19 Sep. 2008	P. Borsa	Durand et al. 2012b	Phylogeny	*Moolgarda seheli*	*Crenimugil* sp. A	-
JQ060506	204	-	SW Lagoon, New Caledonia	08 Apr. 2007	P. Borsa	Durand et al. 2012b	Phylogeny	*Moolgarda seheli*	*Crenimugil* sp. A	-
JQ060507	205	-	Aurora Province, Philippines	01 July 2008	B.W. Jamandre	Durand et al. 2012b	Phylogeny	*Moolgarda seheli*	*Crenimugil* sp. A	-
JQ060508	206	NMMBP10777	Taisi, Taiwan	15 June 2008	K.-N. Shen	Durand et al. 2012b	Phylogeny	*Moolgarda seheli*	*Crenimugil* sp. A	-
JQ060509	207	-	Batanta Island, West Papua	04 Dec. 2007	P. Borsa	Durand et al. 2012b	Phylogeny	*Moolgarda seheli*	*Crenimugil* sp. A	-
JQ060510	210	-	Garapan Lagoon off Oceanside Bar, Saipan, Mariana Is.	24 May 2003	K.A. Moots et. al.	Durand et al. 2012b	Phylogeny	*Moolgarda seheli*	*Crenimugil* sp. A	-
JQ060511	217	-	Al Khobar, Saudi Arabia, Persian Gulf	Nov.-Dec. 2008	Z. Batang, P. Premlal	Durand et al. 2012b	Phylogeny	*Moolgarda seheli*	*Crenimugil* sp. A	-
JQ060513	220	SAIAB-77896	Ternay Bay, Seychelles	14 May 2005	P.C. Heemstra et. al.	Durand et al. 2012b	Phylogeny	*Moolgarda seheli*	*Crenimugil* sp. B	-
JQ060634	221a	-	Stone Town, Zanzibar, Tanzania	28 May 2010	J.-D. Durand	Durand et al. 2012b	Phylogeny	*Moolgarda seheli*	*Crenimugil* sp. B	-
JQ060514	225	MNHN 2009-0815	Noumea, New Caledonia	08 Mar. 2007	P. Borsa	Durand et al. 2012b	Phylogeny	*Moolgarda seheli*	*Crenimugil* sp. B	-
JQ060515	226	MNHN 2009-0810	Noumea, New Caledonia	25 Aug. 2007	P. Borsa	Durand et al. 2012b	Phylogeny	*Moolgarda seheli*	*Crenimugil* sp. B	-
JQ060516	234	NTM S.16014-002	South Goulburn Island, NT, Australia	30 Nov. 2004	R. Williams	Durand et al. 2012b	Phylogeny	*Moolgarda seheli*	*Crenimugil* sp. C	-
JQ060517	235	NTM S.15362-001	Fish River, Daly River area, NT, Australia	06 Sep. 2001	R. Williams	Durand et al. 2012b	Phylogeny	*Moolgarda seheli*	*Crenimugil* sp. C	-
JQ060512	218	SAIAB-77947	Port Launay (SE beach), Seychelles	19 May 2005	P.C. Heemstra et. al.	Durand et al. 2012b	Phylogeny	*Moolgarda seheli*	*Crenimugil* sp. A	-
JQ060518	212	MNHN 2011-0097	La Réunion	Oct. 2008	P. Durville, N. Hubert	Durand et al. 2012b	Phylogeny	*Moolgarda sp.*	*Crenimugil* sp. A	-
JQ060522	215	MNHN ICOS-00266	Ra's al-Hadd, Oman	21 Mar. 2009	P. Béarez	Durand et al. 2012b	Phylogeny	*Moolgarda sp.*	*Crenimugil* sp. A	-
JQ060519	221	-	Negombo lagoon, Sri Lanka	2007	H. Ashanti	Durand et al. 2012b	Phylogeny	*Moolgarda sp.*	*Crenimugil* sp. B	-
JQ060520	222	MNHN 2011-0096	La Réunion	Oct. 2008	P. Durville, N. Hubert	Durand et al. 2012b	Phylogeny	*Moolgarda sp.*	*Crenimugil* sp. B	-
JQ060523	286	MNHN 2009-0733	Saloum estuary, Senegal	06 Mar. 2009	O. Sadio, J. Raffray, L. Tito	Durand et al. 2012b	Phylogeny	*Mugil bananensis*	*Mugil bananensis*	-
JQ060524	289	-	Ebrie lagoon, Ivory Coast	Aug. 2007	B. Gourene	Durand et al. 2012b	Phylogeny	*Mugil bananensis*	*Mugil bananensis*	-
JQ060525	282		St Louis, Senegal estuary, Sénégal	26 Jan. 2008	J.-D. Durand	Durand et al. 2012b	Phylogeny	*Mugil capurrii*	*Mugil capurrii*	-
JQ060526	283	-	Dakhla, Western Sahara	June 2006	H. Masski	Durand et al. 2012b	Phylogeny	*Mugil capurrii*	*Mugil capurrii*	-
JQ060527	285	MNHN 2009-0795	Lomé, Togo	19 June 2007	J.-F. Trape	Durand et al. 2012b	Phylogeny	*Mugil capurrii*	*Mugil capurrii*	-
JQ060533	321	-	Martigues, France	02 Aug. 2007	G. Lepra	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil cephalus*	-
JQ060532	319	-	Goulette, Tunisia	22 Dec. 2005	H. Blel	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil cephalus*	-
JQ060529	314	-	Merja Zerga, Morocco	09 Feb. 2006	H. Nouiri	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil cephalus*	-
JQ060534	322	-	Agadir, Morocco	-	A. Pariselle	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil cephalus*	-
JQ060536	325c	-	Khnifiss, Morocco	Mar. 2010	A. Pariselle	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil cephalus*	-
JQ060563	375	UDOV-290	Coast of Iquique, Chili	23 May 2005	M. Nirchio	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. A	-
JQ060564	376	UDOV-291	Coast of Iquique, Chili	23 May 2005	M. Nirchio	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. A	-
JQ060562	373	-	Laguna madre, Mexico	June 2006	F. J. Garciade Leon	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. B	-
JQ060540	329	NMMBP11545	Kaoping estuary, Taiwan	28 Dec. 2007	K.-N. Shen	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. C	-
JQ060549	350	-	Hawaii	June-Oct. 2008	T. Ogawa	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. D	-
JQ060550	351	-	Hawaii	June-Oct. 2008	T. Ogawa	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. D	-
JQ060551	354b	-	Hawaii	Oct. 2008	M.T. Craig	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. D	-
JQ060544	341	-	Great Fish river estuary, South Africa	12 May 2005	A.K. Whitfield, J.-D. Durand	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. E	-
JQ060545	342	-	Great Fish river estuary, South Africa	12 May 2005	A.K. Whitfield, J.-D. Durand	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. E	-
JQ060546	343	-	St Lucia, South Africa	May, Nov. 2006	A.K. Whitfield	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. E	-
JQ060547	343b	-	St Lucia, South Africa	May, Nov. 2006	A.K. Whitfield	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. E	-
JQ060548	343c	-	St Lucia, South Africa	May, Nov. 2006	A.K. Whitfield	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. E	-
JQ060572	388	-	SW Lagoon, New Caledonia	25 Aug. 2007	P. Borsa	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. F	-

JQ060554	361	-	Pateu Dam, New Zeland	03 Nov. 2006	J. Boubee	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. F	-
JQ060555	362	-	Pateu Dam, New Zeland	03 Nov. 2006	J. Boubee	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. F	-
HQ149715	371	-	La Paz, Mexico	23 June 2006	F.J. Garcia de Leon	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. G	-
JQ060560	371b	-	Paredon, Chiapas, Mexico	Apr. 2010	P. Diaz Jaimes	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. G	-
JQ060561	371c	-	Paredon, Chiapas, Mexico	Apr. 2010	P. Diaz Jaimes	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. G	-
HQ149714	349	-	Lima, Peru	21-24 June 2005	S. Sirvas	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. G	-
JQ060556	362b	-	Waikato river, New Zeland	28 June 1905	J. Boubee	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. H	-
JQ060558	367	-	Swansea, Sydney, Australia	17 Nov. 2005	K. Rowling	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. H	-
JQ060565	377	AMS-I-43204-082	Port Hacking, Point Danger, Sydney, Australia	July 1997	B. Pease et al.	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. H	-
JQ060539	328	NMMBP11549	Kaoping estuary, Taiwan	29 Dec. 2007	K.-N. Shen	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. I	-
JQ060552	357	NMMBP10790	Taisi, Taiwan	15 June 2008	K.-N. Shen	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. I	-
JQ060553	358	-	Pearl River, China	May 2005	X.-P. Nie	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. I	-
JQ060557	365	NSMT-P77767	Atake river, Kagoshima Prefecture, Kyushu, Japan	04 July 2007	S. Chiba	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. I	-
JQ060535	325b		Khnifiss, Morocco	Mar. 2010	A. Pariselle	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. J	-
JQ060528	308	-	Saloum estuary, Senegal	Dec. 2005	K. Diop	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. J	-
JQ060537	326	MNHN 2009-734	Hann Bay, Dakar, Senegal	06 Mar. 2009	J.-D. Durand	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. J	-
JQ060538	327	SAIAB-83187	Hann Bay, Dakar, Senegal	06 Mar. 2009	J.-D. Durand	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. J	-
JQ060543	337	-	Boran Dabon, Forecariah estuary, Guinea	20 Feb. 2006	S.B. Camara	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. J	-
JQ060542	333	-	Lomé, Togo	19 June 2007	J.-F. Trape	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. J	-
JQ060530	315	-	Nokoue Lake, Benin	12 Apr. 2007	P. Laleye	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. J	-
JQ060531	316	-	Cunene River, Angola	-	S. Lamberth	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. J	-
JQ060559	368	-	Peel Harvey estuary, Australia	05 Jan. 2006	K. Smith	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. K	-
JQ060541	329b	NMMBP11553	Kaoping estuary, Taiwan	29 Dec. 2007	K.-N. Shen	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. L	-
JQ060566	380	MNHN 2009-0819	Koné, New Caledonia	11 Aug. 2007	P. Borsa	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. L	-
JQ060568	383	MNHN 2009-0820	Noumea, New Caledonia	08 Apr. 2007	P. Borsa	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. L	-
JQ060569	384	-	Koné, New Caledonia	11 Aug. 2007	P. Borsa	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. L	-
JQ072904	385	-	Koné, New Caledonia	11 Aug. 2007	P. Borsa	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. L	-
JQ060570	386	-	Koné, New Caledonia	11 Aug. 2007	P. Borsa	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. L	-
JQ060571	387	-	Koné, New Caledonia	11 Aug. 2007	P. Borsa	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. L	-
JQ060567	381	-	Viti Levu, Fiji	19 Sep. 2008	P. Borsa	Durand et al. 2012b	Phylogeny	*Mugil cephalus*	*Mugil* sp. L	-
JQ060605	417	NRM-56494	Arroyo Zanja, Uruguay	21 Feb. 2007	S. Kullander	Durand et al. 2012b	Phylogeny	*Mugil curema*	*Mugil curema*	-
JQ060606	418	NRM-56495	Arroyo Zanja, Uruguay	21 Feb. 2007	S. Kullander	Durand et al. 2012b	Phylogeny	*Mugil curema*	*Mugil curema*	-
JQ060586	404	-	Upper Cooper River, USA	14 Oct. 2005	B. Roumillat	Durand et al. 2012b	Phylogeny	*Mugil curema*	*Mugil curema*	-
JQ060587	405	USMI field no. WAM08	Close to Michaels Rock , Guanaja Island, Honduras	15 July 2008	W.A. Matamoros	Durand et al. 2012b	Phylogeny	*Mugil curema*	*Mugil curema*	-
JQ060589	407	-	Laguna Madre, Mexico	July 2006	F.J. Garcia de Leon	Durand et al. 2012b	Phylogeny	*Mugil curema*	*Mugil curema*	-
JQ060590	408	-	Itapissuma, Brazil	03 Dec. 2004	R. Lessa	Durand et al. 2012b	Phylogeny	*Mugil curema*	*Mugil curema*	-
JQ060591	411	-	Guadeloupe	30 June 1905	M. Louis	Durand et al. 2012b	Phylogeny	*Mugil curema*	*Mugil curema*	-
JQ060593	414	UDOV-201	La Restinga, Margarita Island, Venezuela	25 Jan. 2005	M. Nirchio	Durand et al. 2012b	Phylogeny	*Mugil curema*	*Mugil curema*	-
JQ060575	390	MNHN 2009-0732	Saloum estuary, Senegal	06 Mar. 2009	O. Sadio	Durand et al. 2012b	Phylogeny	*Mugil curema*	*Mugil* sp. M	-
JQ060578	393	-	Nokoue, Lake, Benin	12 Apr. 2007	P. Laleye	Durand et al. 2012b	Phylogeny	*Mugil curema*	*Mugil* sp. M	-
JQ060579	394	-	Nokoue, Lake, Benin	12 Apr. 2007	P. Laleye	Durand et al. 2012b	Phylogeny	*Mugil curema*	*Mugil* sp. M	-
JQ060580	396	-	Lomé, Togo	19 June 2007	J.-F. Trape	Durand et al. 2012b	Phylogeny	*Mugil curema*	*Mugil* sp. M	-
JQ060581	397	-	Lomé, Togo	19 June 2007	J.-F. Trape	Durand et al. 2012b	Phylogeny	*Mugil curema*	*Mugil* sp. M	-
JQ060576	391	SAIAB-83183	Saloum estuary, Senegal	06 Mar. 2009	O. Sadio	Durand et al. 2012b	Phylogeny	*Mugil curema*	*Mugil* sp. M	-
JQ060577	392	-	Foundiougne, Saloum estuary, Senegal	Dec. 2005	O. Diouf	Durand et al. 2012b	Phylogeny	*Mugil curema*	*Mugil* sp. M	-
JQ060582	399	UDOV-69	La Restinga, Margarita Island, Venezuela	06 Apr. 2004	M. Nirchio	Durand et al. 2012b	Phylogeny	*Mugil curema*	*Mugil* sp. N	-
JQ060583	400	UDOV-70	La Restinga, Margarita Island, Venezuela	06 Apr. 2004	M. Nirchio	Durand et al. 2012b	Phylogeny	*Mugil curema*	*Mugil* sp. N	-
JQ060584	401	UDOV-73	Boca del Rio, Margarita Island, Venezuela	12 Apr. 2004	M. Nirchio	Durand et al. 2012b	Phylogeny	*Mugil curema*	*Mugil* sp. N	-
JQ060585	403	UDOV-71	Boca del Rio, Margarita Island, Venezuela	10 Apr. 2004	M. Nirchio	Durand et al. 2012b	Phylogeny	*Mugil curema*	*Mugil* sp. N	-
JQ060588	406	-	La Paz, Mexico	23 June 2006	F.J. Garcia de Leon	Durand et al. 2012b	Phylogeny	*Mugil curema*	*Mugil* sp. O	-
JQ060596	422	-	Barra San José, Chapas, Mexico	Apr. 2010	N. Laurrabaquio Alvarado	Durand et al. 2012b	Phylogeny	*Mugil curema*	*Mugil* sp. O	-
JQ060604	415	NRM-53693	Barra de Santiago, El Salvador	25 Feb. 2006	S. Kullander	Durand et al. 2012b	Phylogeny	*Mugil curema*	*Mugil* sp. O	-
JQ060599	425	-	Paredon, Chapas, Mexico	09 Apr. 2010	N. Laurrabaquio Alvarado	Durand et al. 2012b	Phylogeny	*Mugil curema*	*Mugil* sp. O	-
JQ060603	432	KU:KUI:40336	Mouth of Cerique estuary, El Salvador	20 June 2008	A.C. Bentley, K. Lara	Durand et al. 2012b	Phylogeny	*Mugil curema*	*Mugil* sp. O	-
JQ060573	293	UDOV-186	Chorreras Bay, Panama, Pacific coast	05 Dec. 1999	M. Nirchio	Durand et al. 2012b	Phylogeny	*Mugil curema*	*Mugil* sp. O	-
JQ060574	294	UDOV-187	Chorreras Bay, Panama, Pacific coast	05 Dec. 1999	M. Nirchio	Durand et al. 2012b	Phylogeny	*Mugil curema*	*Mugil* sp. O	-
JQ060597	423	-	Barra San José, Chapas, Mexico	08 Apr. 2010	N. Laurrabaquio Alvarado	Durand et al. 2012b	Phylogeny	*Mugil curema*	*Mugil* sp. O	-
JQ060598	424	-	Barra San José, Chapas, Mexico	08 Apr. 2010	N. Laurrabaquio Alvarado	Durand et al. 2012b	Phylogeny	*Mugil curema*	*Mugil* sp. O	-
JQ060592	413	-	North Peru	2005	S. Sirvas	Durand et al. 2012b	Phylogeny	*Mugil curema*	*Mugil* sp. O	-
JQ060595	420	-	Salango, Ecuador	11 Nov. 2008	P. Béarez	Durand et al. 2012b	Phylogeny	*Mugil curema*	*Mugil* sp. O	-
JQ060600	426	KU:KUI:40290	Sand flats at mouth of Cerique Estuary, El Salvador	16 June 2008	A.C. Bentley, K. Lara	Durand et al. 2012b	Phylogeny	*Mugil curema*	*Mugil* sp. O	-
JQ060594	419	-	St. Johns college shore, Belize City, Belize	08 July 1999	Belize Workshop participants	Durand et al. 2012b	Phylogeny	*Mugil curema*	*Mugil curema*	-

JQ060601	429	KU:KUI:40290	Sand flats at mouth of Cerique Estuary, El Salvador	16 June 2008	A.C. Bentley, K. Lara	Durand et al. 2012b	Phylogeny	*Mugil curema*	*Mugil* sp. O	-
JQ060602	430	-	Mangrove upstream Cerique estuary, El Salvador	16 June 2008	A.C. Bentley, K. Lara	Durand et al. 2012b	Phylogeny	*Mugil curema*	*Mugil* sp. O	-
JQ060607	306	-	West side of Turneffe Caye, deep hole, Belize	08 July 1999	Belize Workshop	Durand et al. 2012b	Phylogeny	*Mugil hospes*	*Mugil* sp. R	-
JQ060608	302	-	Kourou, French Guyana	12 Jan. 2007	R. Vigouroux	Durand et al. 2012b	Phylogeny	*Mugil incilis*	*Mugil incilis*	-
JQ060609	299	-	Kourou, French Guyana	12 Jan. 2007	R. Vigouroux	Durand et al. 2012b	Phylogeny	*Mugil incilis*	*Mugil incilis*	-
JQ060610	378	NRM-56496	Arroyo Zanja, Uruguay	21 Feb. 2007	S. Kullander	Durand et al. 2012b	Phylogeny	*Mugil liza*	*Mugil liza*	-
JQ060611	379	NRM-55970	Laguna del Diaro, Uruguay	21 Feb. 2007	S. Kullander	Durand et al. 2012b	Phylogeny	*Mugil liza*	*Mugil liza*	-
JQ060612	305	UDOV-88	Boca del Rio, Margarita Island, Venezuela	01 June 2004	M. Nirchio	Durand et al. 2012b	Phylogeny	*Mugil rubrioculus*	*Mugil rubrioculus*	-
JQ060613	305b	UDOV-190	Chorreras Bay, Pacific coast of Panama	05 Dec. 1999	M. Nirchio	Durand et al. 2012b	Phylogeny	*Mugil rubrioculus*	*Mugil* sp. P	-
JQ060614	291	UDOV-72	Boca del Rio, Margarita Island, Venezuela	10 Apr. 2004	M. Nirchio	Durand et al. 2012b	Phylogeny	*Mugil trichodon*	*Mugil trichodon*	-
JQ060615	019	-	East Kleinemonde estuary, South Africa	21 Sep. 2007	A.K. Whitfield	Durand et al. 2012b	Phylogeny	*Myxus capensis*	*Pseudomyxus capensis*	-
JQ060616	020	NMV A 25183-002	unknown location, Australia	29 July 2003	Sydney Wholesale Fish Market	Durand et al. 2012b	Phylogeny	*Myxus elongatus*	*Myxus elongatus*	-
JQ060617	003	SAIAB-86170	Saipan, Mariana Islands	24 May 2003	K.A. Moots et. al.	Durand et al. 2012b	Phylogeny	*Neomyxus leuciscus*	*Neomyxus leuciscus*	-
JQ060618	003b	MNHN 2009-1681	Arutua atoll, Tuamotu	Nov. 2009	A. Stein	Durand et al. 2012b	Phylogeny	*Neomyxus leuciscus*	*Neomyxus leuciscus*	-
JQ060619	181	-	Goulette, Tunisia	Apr. 2003	H. Blel	Durand et al. 2012b	Phylogeny	*Oedalechilus labeo*	*Oedalechilus labeo*	-
JQ060620	243	NMMBP10775	Orchid Island, Taiwan	01 Jan. 2009	K.-N. Shen	Durand et al. 2012b	Phylogeny	*Oedalechilus labiosus*	*Plicomugil labiosus*	-
JQ060621	118	-	Segara Amahan lagoon, Java, Indonesia	July 2008	S. Kleinertz, SPICE II project	Durand et al. 2012b	Phylogeny	*Liza melinoptera*	*Planiliza* sp. B	-
JQ060622	016	NRM 59032	Mandalay fish market, Myanmar	26 Mar. 2008	S. Kullander, T.-Y. Liao	Durand et al. 2012b	Phylogeny	*Rhinomugil corsula*	*Rhinomugil corsula*	-
JQ060623	015	NTM S.16483-002	Near Crocodile Creek, Daly river, NT, Australia	13 June 2007	H. Larson	Durand et al. 2012b	Phylogeny	*Rhinomugil nasutus*	*Squalomugil nasutus*	-
JQ060624	013	FNHM 172496	Dhaka, Bangladesh	13 Dec. 2008	R.L. Mayden et al.	Durand et al. 2012b	Phylogeny	*Sicamugil cascasia*	*Minimugil cascasia*	-
JQ060625	014	NRM 58582	Myoma market, Myanmar	18 Mar. 2008	F. Fang, Thein Win	Durand et al. 2012b	Phylogeny	*Sicamugil hamiltonii*	*Sicamugil hamiltonii*	-
JQ060626	017	AMS I-43255-002	Williams River, Queensland, Australia	16 Feb. 2004	M. Charlton	Durand et al. 2012b	Phylogeny	*Trachystoma petardi*	*Trachystoma petardi*	-
JQ060627	245	MNHN 2009-0816	New Caledonia	08 Apr. 2007	P. Borsa	Durand et al. 2012b	Phylogeny	*Valamugil buchanani*	*Crenimugil buchanani*	-
JQ060628	254	SAIAB-78293	Umgazana, South Africa	12 May 2006	DIFS	Durand et al. 2012b	Phylogeny	*Valamugil buchanani*	*Crenimugil buchanani*	-
JQ060641	248	-	Kenya	Jul.-Nov. 2008	D. Nyingi	Durand et al. 2012b	Phylogeny	*Valamugil buchanani*	*Crenimugil buchanani*	-
JQ060642	252	-	Kenya	Jul.-Nov. 2008	D. Nyingi	Durand et al. 2012b	Phylogeny	*Valamugil buchanani*	*Crenimugil buchanani*	-
JQ060629	259	SAIAB-78094	Nkadusweni estuary, South Africa	09 May 2006	DIFS	Durand et al. 2012b	Phylogeny	*Valamugil robustus*	*Osteomugil robustus*	-
JQ060630	260	SAIAB-78137	Poenskop , South Africa	10 May 2006	DIFS	Durand et al. 2012b	Phylogeny	*Valamugil robustus*	*Osteomugil robustus*	-
JQ060521	255	MNHN 2011-0095	Réunion Island	Oct. 2008	P. Durville, N. Hubert	Durand et al. 2012b	Phylogeny	*Valamugil robustus*	*Osteomugil robustus*	-
JQ060639	268	-	Aurora Province, Philippines	01 July 2008	B.W. Jamandre	Durand et al. 2012b	Phylogeny	*Valamugil sp.*	*Osteomugil perusii*	-
JQ060640	271	-	Negombo lagoon, Sri Lanka	2007	H. Ashanti	Durand et al. 2012b	Phylogeny	*Valamugil sp.*	*Osteomugil perusii*	-
JQ060635	229	-	Nha Trang City, Khanh Hoa Province, Viet Nam	25 Feb. 2009	D. Vo	Durand et al. 2012b	Phylogeny	*Valamugil sp.*	*Crenimugil* sp. C	-
JQ060636	238	-	Viti Levu, Fiji	19 Sep. 2008	P. Borsa	Durand et al. 2012b	Phylogeny	*Valamugil sp.*	*Crenimugil* sp. D	-
JQ060637	239	-	Viti Levu, Fiji	19 Sep. 2008	P. Borsa	Durand et al. 2012b	Phylogeny	*Valamugil sp.*	*Crenimugil* sp. D	-
JQ060638	241	ASIZP0064762	Pingdon, Taiwan	15 Aug. 2004	P.-F. Lee	Durand et al. 2012b	Phylogeny	*Valamugil sp.*	*Crenimugil* sp. D	-
JQ343910	-	IOCASFY-Lh-002	Zhimai River, China	-	W.-L. Li	-	Barcoding	*Liza haematocheila*	*Planiliza haematocheila*	M
JQ365431	-	HRCB:40559	23.863 S 46.152 W, Sao Paulo, Brazil	14 Apr. 2010	B. Barbanti	Oliveira Ribeiro et al. 2012	Barcoding	*Mugil curema*	*Mugil curema*	M
JQ365432	-	HRCB:40566	23.863 S 46.152 W, Sao Paulo, Brazil	07 May 2010	B. Barbanti	Oliveira Ribeiro et al. 2012	Barcoding	*Mugil curema*	*Mugil curema*	M
JQ365433	-	HRCB:46936	23.863 S 46.152 W, Sao Paulo, Brazil	14 Sep. 2010	C. Oliveira	Oliveira Ribeiro et al. 2012	Barcoding	*Mugil curema*	*Mugil curema*	M
JQ365434	-	HRCB:46939	23.863 S 46.152 W, Sao Paulo, Brazil	14 Sep. 2010	C. Oliveira	Oliveira Ribeiro et al. 2012	Barcoding	*Mugil curema*	*Mugil curema*	M
JQ365435	-	HRCB:40558	23.863 S 46.152 W, Sao Paulo, Brazil	14 Apr. 2010	B. Barbanti	Oliveira Ribeiro et al. 2012	Barcoding	*Mugil curema*	*Mugil curema*	M
JQ365436	-	HRCB:40506	23.863 S 46.152 W, Sao Paulo, Brazil	21 Dec. 2009	B. Barbanti	Oliveira Ribeiro et al. 2012	Barcoding	*Mugil curema*	*Mugil curema*	M
JQ365437	-	HRCB:46938	23.863 S 46.152 W, Sao Paulo, Brazil	14 Sep. 2010	C. Oliveira	Oliveira Ribeiro et al. 2012	Barcoding	*Mugil curema*	*Mugil curema*	M
JQ365438	-	HRCB:40589	23.863 S 46.152 W, Sao Paulo, Brazil	20 June 2010	B. Barbanti	Oliveira Ribeiro et al. 2012	Barcoding	*Mugil curema*	*Mugil curema*	M
JQ365439	-	HRCB:40560	23.863 S 46.152 W, Sao Paulo, Brazil	14 Apr. 2010	B. Barbanti	Oliveira Ribeiro et al. 2012	Barcoding	*Mugil curema*	*Mugil curema*	M
JQ365440	-	HRCB:40557	23.863 S 46.152 W, Sao Paulo, Brazil	14 Apr. 2010	B. Barbanti	Oliveira Ribeiro et al. 2012	Barcoding	*Mugil curema*	*Mugil curema*	M
JQ365441	-	HRCB:46935	23.863 S 46.152 W, Sao Paulo, Brazil	14 Sep. 2010	C. Oliveira	Oliveira Ribeiro et al. 2012	Barcoding	*Mugil curema*	*Mugil curema*	M
JQ365442	-	HRCB:46937	23.863 S 46.152 W, Sao Paulo, Brazil	14 Sep. 2010	C. Oliveira	Oliveira Ribeiro et al. 2012	Barcoding	*Mugil curema*	*Mugil curema*	M
JQ365443	-	HRCB:51316	25.105 S 47.781 W, Sao Paulo, Brazil	16 Feb. 2012	C. Oliveira	Oliveira Ribeiro et al. 2012	Barcoding	*Mugil curema*	*Mugil curema*	M
JQ365444	-	HRCB:51320	25.105 S 47.781 W, Sao Paulo, Brazil	16 Feb. 2012	C. Oliveira	Oliveira Ribeiro et al. 2012	Barcoding	*Mugil hospes*	*Mugil brevirostris*	M
JQ365445	-	HRCB:51319	25.105 S 47.781 W, Sao Paulo, Brazil	16 Feb. 2012	C. Oliveira	Oliveira Ribeiro et al. 2012	Barcoding	*Mugil hospes*	*Mugil brevirostris*	M
JQ365446	-	HRCB:51315	25.105 S 47.781 W, Sao Paulo, Brazil	16 Feb. 2012	C. Oliveira	Oliveira Ribeiro et al. 2012	Barcoding	*Mugil hospes*	*Mugil brevirostris*	M
JQ365447	-	HRCB:40546	23.863 S 46.152 W, Sao Paulo, Brazil	14 Apr. 2010	B. Barbanti	Oliveira Ribeiro et al. 2012	Barcoding	*Mugil liza*	*Mugil liza*	M
JQ365448	-	HRCB:46874	24.616 S 46.133 W, Sao Paulo, Brazil	13 Sep. 2010	C. Oliveira	Oliveira Ribeiro et al. 2012	Barcoding	*Mugil liza*	*Mugil liza*	M
JQ365449	-	HRCB:35140	23.506 S 45.034 W, Sao Paulo, Brazil	11 Dec. 2008	C. Oliveira	Oliveira Ribeiro et al. 2012	Barcoding	*Mugil liza*	*Mugil liza*	M
JQ431670	-	MBIO1645.4	Moorea, Society Islands	28 Mar. 2006	R. Causse et al.	Hubert et al. 2012	Barcoding	*Crenimugil crenilabis*	*Crenimugil crenilabis*	M
JQ431701	-	MBIO810.4	Haapiti, Moorea, Society Islands	15 Mar. 2006	S. Planes	Hubert et al. 2012	Barcoding	*Ellochelon vaigiensis*	*Ellochelon vaigiensis*	M
JQ431702	-	MBIO809.4	Haapiti, Moorea, Society Islands	15 Mar. 2006	S. Planes	Hubert et al. 2012	Barcoding	*Ellochelon vaigiensis*	*Ellochelon vaigiensis*	M
JQ431911	-	MBIO814.4	Haapiti, Moorea, Society Islands	15 Mar. 2006	S. Planes	Hubert et al. 2012	Barcoding	*Moolgarda engeli*	*Osteomugil engeli*	M
JQ431912	-	MBIO813.4	Haapiti, Moorea, Society Islands	15 Mar. 2006	S. Planes	Hubert et al. 2012	Barcoding	*Moolgarda engeli*	*Osteomugil engeli*	M
JQ431913	-	MBIO828.4	Haapiti, Moorea, Society Islands	15 Mar. 2006	S. Planes	Hubert et al. 2012	Barcoding	*Moolgarda engeli*	*Osteomugil engeli*	M
JQ623946	TR043EK	-	Turkey	-	E. Keskin	-	Barcoding	*Liza aurata*	*Chelon auratus*	M

JQ623947	TR044EK	-	Turkey	-	E. Keskin	-	Barcoding	*Liza carinata*	*Planiliza macrolepis*	X
JQ623956	TR053EK	-	Turkey	-	E. Keskin	-	Barcoding	*Mugil cephalus*	*Mugil* sp. I	M
JQ775055	-	FCFOPB060-08	39.92 N 9.00 W, Portugal	22 Oct. 2005	J. Pastor	Costa et al. 2012	Barcoding	*Liza ramado*	*Chelon ramado*	M
JQ775056	-	FCFOPB077-03	41.03 N 9.98 W, Portugal	26 Oct. 2005	J. Pastor	Costa et al. 2012	Barcoding	*Liza ramado*	*Chelon ramado*	M
JQ775057	-	FCFOPB083-06	41.25 N 8.98 W, Portugal	05 Nov. 2005	J. Pastor	Costa et al. 2012	Barcoding	*Liza ramado*	*Chelon ramado*	M
JQ775058	-	FCFOPB060-07	39.92 N 9.00 W, Portugal	22 Oct. 2005	J. Pastor	Costa et al. 2012	Barcoding	*Liza ramado*	*Chelon ramado*	M
JQ775059	-	FCFOPB083-05	41.25 N 8.98 W, Portugal	05 Nov. 2005	J. Pastor	Costa et al. 2012	Barcoding	*Liza ramado*	*Chelon ramado*	M
JQ840169	-	BZLW4430	16.802 N 88.082 W, Carrie Bow Cay, Belize	05 Mar. 2005	L.A. Weigt	Weigt et al. 2012	Barcoding	*Mugil* sp.	*Mugil rubrioculus*	u
JQ840170	-	BZLW4506	16.802 N 88.082 W, Carrie Bow Cay, Belize	06 Mar. 2005	L.A. Weigt	Weigt et al. 2012	Barcoding	*Mugil* sp.	*Mugil rubrioculus*	u
JQ840171	-	BZLW4432	16.802 N 88.082 W, Carrie Bow Cay, Belize	05 Mar. 2005	L.A. Weigt	Weigt et al. 2012	Barcoding	*Mugil* sp.	*Mugil rubrioculus*	u
JQ840172	-	BZLW4431	16.802 N 88.082 W, Carrie Bow Cay, Belize	05 Mar. 2005	L.A. Weigt	Weigt et al. 2012	Barcoding	*Mugil* sp.	*Mugil rubrioculus*	u
JQ840173	-	BZLW4177	16.802 N 88.082 W, Carrie Bow Cay, Belize	28 Feb. 2004	L.A. Weigt	Weigt et al. 2012	Barcoding	*Mugil curema*	*Mugil curema*	M
JQ840940	-	BZLW6045	16.802 N 88.082 W, Carrie Bow Cay, Belize	31 Mar. 2006	C.C. Baldwin	Weigt et al. 2012	Barcoding	*Mugilidae* sp.	*Mugil curema*	u
JQ840941	-	BZLW6036	16.802 N 88.082 W, Carrie Bow Cay, Belize	30 Mar. 2006	C.C. Baldwin	Weigt et al. 2012	Barcoding	*Mugilidae* sp.	*Mugil curema*	u
JQ841285	-	BZLWD7877	17.45 N 88.1167 W, Belize City Fishmarket, Belize	04 Oct. 2007	local fishermen	Weigt et al. 2012	Barcoding	*Mugil* sp.	*Mugil rubrioculus*	u
JQ841286	-	BZLW7069	16.802 N 88.082 W, Belize	13 Jan. 2007	L.A. Weigt	Weigt et al. 2012	Barcoding	*Mugilidae* sp.	*Mugil* sp. R	u
JQ841287	-	BZLW7032	16.802 N 88.082 W, Carrie Bow Cay, Belize	12 Jan. 2007	L.A. Weigt	Weigt et al. 2012	Barcoding	*Mugilidae* sp.	*Mugil* sp. R	u
JQ842245 [c]	-	CURA8417	12.1375 N 68.9724 W, Piscadero Bay mangroves, Curacao	15 Mar. 2004	C.C. Baldwin	Weigt et al. 2012	Barcoding	*Mugil curema*	*Mugil curema*	M
JQ842246	-	CURA8418	12.1375 N 68.9724 W, Piscadero Bay mangroves, Curacao	15 Mar. 2004	C.C. Baldwin	Weigt et al. 2012	Barcoding	*Mugil curema*	*Mugil curema*	M
JQ842247	-	CURA8419	12.1375 N 68.9724 W, Piscadero Bay mangroves, Curacao	15 Mar. 2004	C.C. Baldwin	Weigt et al. 2012	Barcoding	*Mugil curema*	*Mugil curema*	M
JQ842580	-	SMSA7546	27.4783 N 80.3117 W, Oyster reef, Jim Island, Florida, USA	-	C.C. Baldwin	Weigt et al. 2012	Barcoding	*Mugil* sp.	*Mugil rubrioculus*	u
JQ842581	-	SMSA7547	27.4783 N 80.3117 W, Oyster reef, Jim Island, Florida, USA	-	C.C. Baldwin	Weigt et al. 2012	Barcoding	*Mugil* sp.	*Mugil rubrioculus*	u
JQ842582	-	SMSA7001	27.6449 N 80.3692 W, seine tow, Florida, USA	-	C.C. Baldwin	Weigt et al. 2012	Barcoding	*Mugil cephalus*	*Mugil* sp. B	M
JQ842583	-	SMSA7002	27.6449 N 80.3692 W, seine tow, Florida, USA	-	C.C. Baldwin	Weigt et al. 2012	Barcoding	*Mugil cephalus*	*Mugil* sp. B	M
JQ842584	-	SMSA7003	27.6449 N 80.3692 W, seine tow, Florida, USA	-	C.C. Baldwin	Weigt et al. 2012	Barcoding	*Mugil cephalus*	*Mugil* sp. B	M
JQ842585	-	SMSA7004	27.6449 N 80.3692 W, seine tow, Florida, USA	-	C.C. Baldwin	Weigt et al. 2012	Barcoding	*Mugil cephalus*	*Mugil* sp. B	M
JQ842586	-	SMSA7005	27.6449 N 80.3692 W, seine tow, Florida, USA	-	C.C. Baldwin	Weigt et al. 2012	Barcoding	*Mugil cephalus*	*Mugil* sp. B	M
JQ842587	-	SMSA7006	27.6449 N 80.3692 W, seine tow, Florida, USA	-	C.C. Baldwin	Weigt et al. 2012	Barcoding	*Mugil cephalus*	*Mugil* sp. B	M
JQ842588	-	SMSA7013	27.6449 N 80.3692 W, seine tow, Florida, USA	-	C.C. Baldwin	Weigt et al. 2012	Barcoding	*Mugil curema*	*Mugil curema*	M
JQ842589	-	SMSA7008	27.6449 N 80.3692 W, seine tow, Florida, USA	-	C.C. Baldwin	Weigt et al. 2012	Barcoding	*Mugil curema*	*Mugil curema*	M
JQ842590	-	SMSA7007	27.6449 N 80.3692 W, seine tow, Florida, USA	-	C.C. Baldwin	Weigt et al. 2012	Barcoding	*Mugil curema*	*Mugil curema*	M
JQ842591	-	SMSA7009	27.6449 N 80.3692 W, seine tow, Florida, USA	-	C.C. Baldwin	Weigt et al. 2012	Barcoding	*Mugil curema*	*Mugil curema*	M
JQ842592	-	SMSA7010	27.6449 N 80.3692 W, seine tow, Florida, USA	-	C.C. Baldwin	Weigt et al. 2012	Barcoding	*Mugil curema*	*Mugil curema*	M
JQ842593	-	SMSA7011	27.6449 N 80.3692 W, seine tow, Florida, USA	-	C.C. Baldwin	Weigt et al. 2012	Barcoding	*Mugil curema*	*Mugil curema*	M
JQ842594	-	SMSA7012	27.6449 N 80.3692 W, seine tow, Florida, USA	-	C.C. Baldwin	Weigt et al. 2012	Barcoding	*Mugil curema*	*Mugil curema*	M
JQ842965	-	TOB9377	11.1466 N 60.783 W, Petit Trou, Tobago	20 Mar. 2009	C.C. Baldwin	Weigt et al. 2012	Barcoding	*Mugil incilis*	*Mugil incilis*	M
JQ842966	-	TOB9379	11.1466 N 60.783 W, Petit Trou, Tobago	20 Mar. 2009	C.C. Baldwin	Weigt et al. 2012	Barcoding	*Mugil incilis*	*Mugil incilis*	M
JQ842967	-	TOB9378	11.1466 N 60.783 W, Petit Trou, Tobago	20 Mar. 2009	C.C. Baldwin	Weigt et al. 2012	Barcoding	*Mugil incilis*	*Mugil incilis*	M
JQ935845	-	PTR91	Rio Guayalejo, Xicotencatl, Tamaulipas, Mexico	-	E. Soto-Galera	Mejia et al. 2012	Barcoding	*Agonostomus monticola*	*Dajaus sp.*	M
JQ935846	-	PTR88	Rio Guayalejo, Xicotencatl, Tamaulipas, Mexico	-	E. Soto-Galera	Mejia et al. 2012	Barcoding	*Agonostomus monticola*	*Dajaus sp.*	M
JQ935847	-	PTR89	Rio Guayalejo, Xicotencatl, Tamaulipas, Mexico	-	E. Soto-Galera	Mejia et al. 2012	Barcoding	*Agonostomus monticola*	*Dajaus sp.*	M
JQ935848	-	PTR90	Rio Guayalejo, Xicotencatl, Tamaulipas, Mexico	-	E. Soto-Galera	Mejia et al. 2012	Barcoding	*Agonostomus monticola*	*Dajaus sp.*	M
JQ935849	-	PTR92	Rio Guayalejo, Xicotencatl, Tamaulipas, Mexico	-	E. Soto-Galera	Mejia et al. 2012	Barcoding	*Agonostomus monticola*	*Dajaus sp.*	M
JX105471	-	DOF113	24.46 N 93.01 E, India	23 Mar. 2011	S.K. Ghosh	-	Barcoding	*Rhinomugil corsula*	*Rhinomugil corsula*	M
JX124813	-	LBPV48504	Rio de Janeiro, Brazil	19 Oct. 2010	C. Oliveira	unpubl.	Barcoding	*Mugil liza*	*Mugil liza*	M
JX124814	-	LBPV48501	Rio de Janeiro, Brazil	19 Oct. 2010	C. Oliveira	unpubl.	Barcoding	*Mugil liza*	*Mugil liza*	M
JX185135	-	LBP6848 36406	-	-	-	unpubl.	-	*Mugil cephalus*	*Chelon labrosus*	X
JX185136	-	LBP6848 36409	-	-	-	unpubl.	-	*Mugil cephalus*	*Chelon labrosus*	X
JX185137	-	LBP6848 36407	-	-	-	unpubl.	-	*Mugil cephalus*	*Chelon labrosus*	X
JX185138	-	LBP6848 36410	-	-	-	unpubl.	-	*Mugil cephalus*	*Chelon labrosus*	X
JX185139	-	LBP6848 36408	-	-	-	unpubl.	-	*Mugil cephalus*	*Chelon labrosus*	X
JX185140	-	LBP9923 40546	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil liza*	*Mugil liza*	M
JX185141	-	LBP6849 33444	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil liza*	*Mugil liza*	M
JX185142	-	LBP7572 35509	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil liza*	*Mugil liza*	M
JX185143	-	LBP5806 28259	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil liza*	*Mugil liza*	M
JX185144	-	LBP5806 28261	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil liza*	*Mugil liza*	M
JX185145	-	LBP6849 33446	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil liza*	*Mugil liza*	M
JX185146	-	LBP6023 27891	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil liza*	*Mugil liza*	M
JX185147	-	LBP5806 28258	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil liza*	*Mugil liza*	M
JX185148	-	LBP5806 28262	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil liza*	*Mugil liza*	M
JX185149	-	LBP6849 32767	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil liza*	*Mugil liza*	M
JX185150	-	LBP5671 36402	Uruguay	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil liza*	*Mugil liza*	M

JX185151	-	LBP5671 36404	Uruguay	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil liza*	*Mugil liza*	M
JX185152	-	LBP7572 35507	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil liza*	*Mugil liza*	M
JX185153	-	LBP7572 35511	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil liza*	*Mugil liza*	M
JX185154	-	LBP5671 36405	Uruguay	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil liza*	*Mugil liza*	M
JX185155	-	LBP5671 36401	Uruguay	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil liza*	*Mugil liza*	M
JX185156	-	LBP5671 36403	Uruguay	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil liza*	*Mugil liza*	M
JX185157	-	LBP6023 27887	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil liza*	*Mugil liza*	M
JX185158	-	LBP6849 33447	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil liza*	*Mugil liza*	M
JX185159	-	LBP7572 35510	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil liza*	*Mugil liza*	M
JX185160	-	LBP6279 27726	Argentina	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil liza*	*Mugil liza*	M
JX185161	-	LBP6023 27892	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil liza*	*Mugil liza*	M
JX185162	-	LBP6023 27886	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil liza*	*Mugil liza*	M
JX185163	-	LBP6279 27720	Argentina	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil liza*	*Mugil liza*	M
JX185164	-	LBP6064 30219	Venezuela	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil liza*	*Mugil liza*	M
JX185165	-	LBP6064 30227	Venezuela	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil liza*	*Mugil liza*	M
JX185166	-	LBP6064 30089	Venezuela	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil liza*	*Mugil liza*	M
JX185167	-	LBP9108 42759	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil liza*	*Mugil liza*	M
JX185168	-	LBP9108 42761	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil liza*	*Mugil liza*	M
JX185169	-	LBP9108 42760	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil liza*	*Mugil liza*	M
JX185170	-	LBP6849 33445	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil liza*	*Mugil liza*	M
JX185171	-	LBP5806 28260	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil liza*	*Mugil liza*	M
JX185172	-	LBP6064 30221	Venezuela	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil liza*	*Mugil liza*	M
JX185173	-	LBP6279 27706	Argentina	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil liza*	*Mugil liza*	M
JX185174	-	LBP6279 27709	Argentina	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil liza*	*Mugil liza*	M
JX185175	-	LBP6279 27717	Argentina	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil liza*	*Mugil liza*	M
JX185176	-	LBP7572 35508	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil liza*	*Mugil liza*	M
JX185177	-	LBP6023 27893	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil liza*	*Mugil liza*	M
JX185178	-	LBP6066 30105	Venezuela	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil trichodon*	*Mugil trichodon*	M
JX185179	-	LBP6066 30770	Venezuela	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil trichodon*	*Mugil trichodon*	M
JX185180	-	LBP9059 42702	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil incilis*	*Mugil incilis*	M
JX185181	-	LBP 786	Venezuela	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil incilis*	*Mugil incilis*	M
JX185182	-	LBP9061 42657	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil incilis*	*Mugil incilis*	M
JX185183	-	LBP 781	Venezuela	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil incilis*	*Mugil incilis*	M
JX185184	-	LBP 782	Venezuela	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil incilis*	*Mugil incilis*	M
JX185185	-	LBP 785	Venezuela	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil incilis*	*Mugil incilis*	M
JX185186	-	LBP 780	Venezuela	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil incilis*	*Mugil incilis*	M
JX185187	-	LBP 788	Venezuela	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil incilis*	*Mugil incilis*	M
JX185188	-	LBP9059 42663	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil incilis*	*Mugil incilis*	M
JX185189	-	LBP9059 42703	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil incilis*	*Mugil incilis*	M
JX185190	-	LBP9059 42662	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil incilis*	*Mugil incilis*	M
JX185191	-	LBP9061 42658	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil incilis*	*Mugil incilis*	M
JX185192	-	LBP9059 42701	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil incilis*	*Mugil incilis*	M
JX185193	-	LBP6065 30149	Venezuela	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil curema*	*Mugil margaritae*	M
JX185194	-	LBP6129 29541	Venezuela	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil curema*	*Mugil margaritae*	M
JX185195	-	LBP6129 29542	Venezuela	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil curema*	*Mugil margaritae*	M
JX185196	-	LBP6065 30070	Venezuela	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil curema*	*Mugil margaritae*	M
JX185197	-	LBP6065 30153	Venezuela	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil curema*	*Mugil margaritae*	M
JX185198	-	LBP10004 46937	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil curema*	*Mugil curema*	M
JX185199	-	LBP10051 40560	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil curema*	*Mugil curema*	M
JX185200	-	LBP10051 40558	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil curema*	*Mugil curema*	M
JX185201	-	LBP10004 46938	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil curema*	*Mugil curema*	M
JX185202	-	LBP10004 40566	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil curema*	*Mugil curema*	M
JX185203	-	LBP10051 40506	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil curema*	*Mugil curema*	M
JX185204	-	LBP10051 40557	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil curema*	*Mugil curema*	M
JX185205	-	LBP10004 46939	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil curema*	*Mugil curema*	M
JX185206	-	LBP10051 40559	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil curema*	*Mugil curema*	M
JX185207	-	LBP6128 29540	Venezuela	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil* sp.	*Mugil* sp. R	M
JX185208	-	LBP9060 42656	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil rubrioculus*	*Mugil rubrioculus*	M
JX185209	-	LBP9060 42653	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil rubrioculus*	*Mugil rubrioculus*	M
JX185210	-	LBP6063 30086	Venezuela	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil rubrioculus*	*Mugil rubrioculus*	M
JX185211	-	LBP6063 30088	Venezuela	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil rubrioculus*	*Mugil rubrioculus*	M
JX185212	-	LBP9060 42655	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil rubrioculus*	*Mugil rubrioculus*	M

JX185213	-	LBP6063 30087	Venezuela	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil rubrioculus*	*Mugil rubrioculus*	M
JX185214	-	LBP9060 42652	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil rubrioculus*	*Mugil rubrioculus*	M
JX185215	-	LBP9060 42654	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil rubrioculus*	*Mugil rubrioculus*	M
JX185216	-	LBP6061 42659	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil hospes*	*Mugil brevirostris*	M
JX185217	-	LBP6061 42660	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil hospes*	*Mugil brevirostris*	M
JX185218	-	LBP6061 42661	Brazil	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil hospes*	*Mugil brevirostris*	M
JX185219	-	LBP6061 30201	-	-	-	Siccha-Ramirez et al. 2014	Phylogeography	*Mugil curema*	*Mugil curema*	M
JX260846	-	LZYN01	Yanum estuary, Andhra Pradesh, India	-	V. Kalyankar	unpubl.	Barcoding	*Chelon parsia*	*Planiliza* sp. B	u
JX260972	-	SCYN09	Yanum estuary, Andhra Pradesh, India	-	V. Kalyankar	unpubl.	Barcoding	*Sicamugil cascasia*	*Osteomugil* sp.	X
JX559532	Mgal6446	-	Bahia Divine, Isla Santa Cruz, Galapagos Is., Ecuador	15 June 2011	T. Ballesteros, N. Tirado	Durand et al. 2012a	Phylogeny	*Mugil cephalus*	*Mugil* sp. Q	-
JX559533	Mgal6450	-	Bahia Divine, Isla Santa Cruz, Galapagos Is., Ecuador	15 June 2011	T. Ballesteros, N. Tirado	Durand et al. 2012a	Phylogeny	*Mugil cephalus*	*Mugil* sp. Q	-
JX559534	Xt6435	-	Bahia Divine, Isla Santa Cruz, Galapagos Is., Ecuador	15 June 2011	T. Ballesteros, N. Tirado	Durand et al. 2012a	Phylogeny	*Xenomugil thoburni*	*Mugil thoburni*	-
JX559535	Xt6445	-	Bahia Divine, Isla Santa Cruz, Galapagos Is., Ecuador	15 June 2011	T. Ballesteros, N. Tirado	Durand et al. 2012a	Phylogeny	*Xenomugil thoburni*	*Mugil thoburni*	-
JX983355	-	NF760	Bharuch, Gujarat, India	-	R.A. Jamdade	Khedkar et al. 2014	Barcoding	*Liza klunzingeri*	*Planiliza* sp. A	u
JX983356	-	NF762	Bharuch, Gujarat, India	-	R.A. Jamdade	Khedkar et al. 2014	Barcoding	*Liza klunzingeri*	*Planiliza* sp. A	u
JX983357	-	NF761	Bharuch, Gujarat, India	-	R.A. Jamdade	Khedkar et al. 2014	Barcoding	*Liza klunzingeri*	*Planiliza* sp. A	u
JX983367	-	NF569	Bharuch, Gujarat, India	20 Oct. 2010	R.A. Jamdade	Khedkar et al. 2014	Barcoding	*Mugil cephalus*	*Planiliza* sp. D	X
JX983368	-	NF549	Bharuch, Gujarat, India	20 Oct. 2010	R.A. Jamdade	Khedkar et al. 2014	Barcoding	*Mugil cephalus*	*Planiliza* sp. D	X
JX983369	-	NF574	Bharuch, Gujarat, India	20 Oct. 2010	R.A. Jamdade	Khedkar et al. 2014	Barcoding	*Mugil cephalus*	*Planiliza* sp. D	X
JX983482	-	NF759	Bharuch, Gujarat, India	-	R.A. Jamdade	Khedkar et al. 2014	Barcoding	*Rhinomugil corsula*	*Rhinomugil corsula*	M
JX983483	-	NF568	Bharuch, Gujarat, India	20 Oct. 2010	R.A. Jamdade	Khedkar et al. 2014	Barcoding	*Rhinomugil corsula*	*Rhinomugil corsula*	M
JX983495	-	NF550	Bharuch, Gujarat, India	20 Oct. 2010	R.A. Jamdade	Khedkar et al. 2014	Barcoding	*Sicamugil cascasia*	*Planiliza* sp.	X
JX983496	-	NF565	Bharuch, Gujarat, India	20 Oct. 2010	R.A. Jamdade	Khedkar et al. 2014	Barcoding	*Sicamugil cascasia*	*Planiliza* sp.	X
KC349864	PB973	-	supermarket, Castenaso, Italy	-	P. Bartosova	Bartosova et al. 2013	Phylogeny	*Liza ramado*	*Chelon ramado*	M
KC500813	-	TR840EK	Izmir Bay, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Liza aurata*	*Chelon auratus*	M
KC500814	-	TR851EK	Izmir Bay, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Liza aurata*	*Chelon auratus*	M
KC500815	-	TR841EK	Izmir Bay, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Liza aurata*	*Chelon auratus*	M
KC500816	-	TR859EK	Izmir Bay, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Liza aurata*	*Chelon auratus*	M
KC500817	-	TR858EK	Izmir Bay, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Liza aurata*	*Chelon auratus*	M
KC500818	-	TR856EK	Izmir Bay, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Liza aurata*	*Chelon auratus*	M
KC500819	-	TR855EK	Izmir Bay, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Liza aurata*	*Chelon auratus*	M
KC500820	-	TR854EK	Izmir Bay, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Liza aurata*	*Chelon auratus*	M
KC500821	-	TR853EK	Izmir Bay, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Liza aurata*	*Chelon auratus*	M
KC500822	-	TR852EK	Izmir Bay, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Liza aurata*	*Chelon auratus*	M
KC500823	-	TR857EK	Izmir Bay, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Liza aurata*	*Chelon auratus*	M
KC500824	-	TR842EK	Izmir Bay, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Liza aurata*	*Chelon auratus*	M
KC500825	-	TR843EK	Izmir Bay, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Liza aurata*	*Chelon auratus*	M
KC500826	-	TR850EK	Izmir Bay, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Liza aurata*	*Chelon auratus*	M
KC500827	-	TR844EK	Izmir Bay, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Liza aurata*	*Chelon auratus*	M
KC500828	-	TR845EK	Izmir Bay, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Liza aurata*	*Chelon auratus*	M
KC500829	-	TR846EK	Izmir Bay, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Liza aurata*	*Chelon auratus*	M
KC500830	-	TR847EK	Izmir Bay, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Liza aurata*	*Chelon auratus*	M
KC500831	-	TR848EK	Izmir Bay, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Liza aurata*	*Chelon auratus*	M
KC500832	-	TR849EK	Izmir Bay, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Liza aurata*	*Chelon auratus*	M
KC500833	-	TR868EK	Iskenderun Bay, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Liza carinata*	*Planiliza macrolepis*	X
KC500834	-	TR870EK	Iskenderun Bay, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Liza carinata*	*Planiliza macrolepis*	X
KC500835	-	TR879EK	Iskenderun Bay, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Liza carinata*	*Planiliza macrolepis*	X
KC500836	-	TR878EK	Iskenderun Bay, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Liza carinata*	*Planiliza macrolepis*	X
KC500837	-	TR877EK	Iskenderun Bay, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Liza carinata*	*Planiliza macrolepis*	X
KC500838	-	TR876EK	Iskenderun Bay, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Liza carinata*	*Planiliza macrolepis*	X
KC500839	-	TR875EK	Iskenderun Bay, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Liza carinata*	*Planiliza macrolepis*	X
KC500840	-	TR874EK	Iskenderun Bay, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Liza carinata*	*Planiliza macrolepis*	X
KC500841	-	TR873EK	Iskenderun Bay, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Liza carinata*	*Planiliza macrolepis*	X
KC500842	-	TR872EK	Iskenderun Bay, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Liza carinata*	*Planiliza macrolepis*	X
KC500843	-	TR871EK	Iskenderun Bay, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Liza carinata*	*Planiliza macrolepis*	X
KC500844	-	TR861EK	Iskenderun Bay, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Liza carinata*	*Planiliza macrolepis*	X
KC500845	-	TR860EK	Iskenderun Bay, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Liza carinata*	*Planiliza macrolepis*	X
KC500846	-	TR862EK	Iskenderun Bay, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Liza carinata*	*Planiliza macrolepis*	X
KC500847	-	TR863EK	Iskenderun Bay, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Liza carinata*	*Planiliza macrolepis*	X
KC500848	-	TR864EK	Iskenderun Bay, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Liza carinata*	*Planiliza macrolepis*	X
KC500849	-	TR865EK	Iskenderun Bay, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Liza carinata*	*Planiliza macrolepis*	X
KC500850	-	TR866EK	Iskenderun Bay, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Liza carinata*	*Planiliza macrolepis*	X

KC500851	-	TR867EK	Iskenderun Bay, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Liza carinata*	*Planiliza macrolepis*	X
KC500852	-	TR869EK	Iskenderun Bay, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Liza carinata*	*Planiliza macrolepis*	X
KC500933	-	TR976EK	Yumurtalık, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Mugil cephalus*	*Mugil* sp.	M
KC500934	-	TR975EK	Yumurtalık, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Mugil cephalus*	*Mugil* sp.	M
KC500935	-	TR974EK	Yumurtalık, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Mugil cephalus*	*Mugil* sp.	M
KC500936	-	TR973EK	Yumurtalık, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Mugil cephalus*	*Mugil* sp.	M
KC500937	-	TR972EK	Yumurtalık, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Mugil cephalus*	*Mugil* sp.	M
KC500938	-	TR979EK	Yumurtalık, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Mugil cephalus*	*Mugil* sp.	M
KC500939	-	TR978EK	Yumurtalık, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Mugil cephalus*	*Mugil* sp.	M
KC500940	-	TR977EK	Yumurtalık, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Mugil cephalus*	*Mugil* sp.	M
KC500941	-	TR960EK	Yumurtalık, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Mugil cephalus*	*Mugil* sp. I	M
KC500942	-	TR961EK	Yumurtalık, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Mugil cephalus*	*Mugil* sp. I	M
KC500943	-	TR962EK	Yumurtalık, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Mugil cephalus*	*Mugil* sp. I	M
KC500944	-	TR971EK	Yumurtalık, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Mugil cephalus*	*Mugil* sp.	M
KC500945	-	TR970EK	Yumurtalık, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Mugil cephalus*	*Mugil* sp.	M
KC500946	-	TR969EK	Yumurtalık, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Mugil cephalus*	*Mugil* sp.	M
KC500947	-	TR968EK	Yumurtalık, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Mugil cephalus*	*Mugil* sp. I	M
KC500948	-	TR967EK	Yumurtalık, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Mugil cephalus*	*Mugil* sp. I	M
KC500949	-	TR966EK	Yumurtalık, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Mugil cephalus*	*Mugil* sp. I	M
KC500950	-	TR965EK	Yumurtalık, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Mugil cephalus*	*Mugil* sp. I	M
KC500951	-	TR964EK	Yumurtalık, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Mugil cephalus*	*Mugil* sp. I	M
KC500952	-	TR963EK	Yumurtalık, Turkey	-	E. Keskin	Keskin and Atar 2013	Barcoding	*Mugil cephalus*	*Mugil* sp. I	M
KC970393	-	BOLD:ACD9319	Pangasinan, Philippines	21 Dec. 2012	-	Yambot et al. unpubl.	Barcoding	*Liza sp.*	*Planiliza* sp.	M
KF009605	-	ARO 164	Aurora, Philippines	14 Dec. 2012	M.J. Rafael, S. Alcantara	Yambot et al. unpubl.	Barcoding	*Chelon macrolepis*	*Planiliza* sp. H	M
KF010474	VcunVel-04	-	Vellar Estuary, Parangipettai, Tamil Nadu, India	7 May 2012	M. Ashiq Ur Rahman	Ashiq Ur Rahman et al. 2014	Phylogeny	*Moolgarda perusii*	*Osteomugil perusii*	M
KF010475	MugCoch-08	-	Cochin backwaters, Kochi, Kerala, India	12 Jan. 2013	M. Ashiq Ur Rahman	Ashiq Ur Rahman et al. 2014	Phylogeny	*Moolgarda perusii*	*Osteomugil perusii*	M
KF010476	MugCoch-09	-	Cochin backwaters, Kochi, Kerala, India	12 Jan. 2013	M. Ashiq Ur Rahman	Ashiq Ur Rahman et al. 2014	Phylogeny	*Moolgarda perusii*	*Osteomugil perusii*	M
KF010477	MugCoch-10	-	Cochin backwaters, Kochi, Kerala, India	12 Jan. 2013	M. Ashiq Ur Rahman	Ashiq Ur Rahman et al. 2014	Phylogeny	*Moolgarda perusii*	*Osteomugil perusii*	M
KF010478	MugCoch-12	-	Cochin backwaters, Kochi, Kerala, India	12 Jan. 2013	M. Ashiq Ur Rahman	Ashiq Ur Rahman et al. 2014	Phylogeny	*Moolgarda perusii*	*Osteomugil perusii*	M
KF010479	MugCoch-13	-	Cochin backwaters, Kochi, Kerala, India	12 Jan. 2013	M. Ashiq Ur Rahman	Ashiq Ur Rahman et al. 2014	Phylogeny	*Moolgarda perusii*	*Osteomugil perusii*	M
KF010480	MugCoch-14	-	Cochin backwaters, Kochi, Kerala, India	12 Jan. 2013	M. Ashiq Ur Rahman	Ashiq Ur Rahman et al. 2014	Phylogeny	*Moolgarda perusii*	*Osteomugil perusii*	M
KF010481	MugCoch-15	-	Cochin backwaters, Kochi, Kerala, India	12 Jan. 2013	M. Ashiq Ur Rahman	Ashiq Ur Rahman et al. 2014	Phylogeny	*Moolgarda perusii*	*Osteomugil perusii*	M
KF010482	MugCoch-16	-	Cochin backwaters, Kochi, Kerala, India	12 Jan. 2013	M. Ashiq Ur Rahman	Ashiq Ur Rahman et al. 2014	Phylogeny	*Moolgarda perusii*	*Osteomugil perusii*	M
KF214305	-	NFGJ573	Narmada Estuary, Bharuch, Gujarat, India	9 Dec. 2012	-	Khedkar et al. 2014	Barcoding	*Rhinomugil corsula*	*Rhinomugil corsula*	M
KF489538	-	ADC12_222.6 6	Little Toti estuary, South Africa	13 Jan. 2010	S. Weerts	Steinke et al. unpubl.	Barcoding	*Liza melinoptera*	*Planiliza melinoptera*	M
KF667528	-	-	-	-	-	Chen et al. 2015	Barcoding	*Liza haematocheila*	*Planiliza haematocheila*	M
KF714973	-	PGN159	Pangasinan, Philippines	13 Jun. 2013	S. Alcantara, H.J. Juguilon	Juguilon et al. unpubl.	Barcoding	*Moolgarda perusii*	*Osteomugil perusii*	M
KF714976	-	PGN213	Pangasinan, Philippines	13 Jun. 2013	S. Alcantara, H.J. Juguilon	Juguilon et al. unpubl.	Barcoding	*Moolgarda seheli*	*Crenimugil* sp. A	M
KF929795	-	KUT 6844	South Beach, Port Launay, Mahe, Seychelles	19 Apr. 2005	K.A. Moots et al.	Bentley and Wiley unpubl.	-	*Crenimugil crenilabis*	*Crenimugil crenilabis*	M
KF930055	-	KUT 6842	South Beach, Port Launay, Mahe, Seychelles	19 Apr. 2005	K.A. Moots et al.	Bentley and Wiley unpubl.	-	*Chelon macrolepis*	*Planiliza macrolepis*	M
KF930056	-	KUT 6496	Kelly's Beach rock pools, Port Alfred, Eastern Cape, South Africa	25 Sept. 2004	K.A. Moots et al.	Bentley and Wiley unpubl.	-	*Liza richardsonii*	*Chelon richardsonii*	M
KF930146	-	KUT 1636	Ponds on 2 miles on east side of San Luis Pass, Galveston, Texas, USA	24 Sept. 1995	L. Balls et al.	Bentley and Wiley unpubl.	-	*Mugil cephalus*	*Mugil* sp. B	M
KF930147	-	KUT 826	Dauphin Island, Mobile, Alabama, USA	14 Jul. 1993	B. Kuhajda	Bentley and Wiley unpubl.	-	*Mugil curema*	*Mugil curema*	M
KF930148	-	KUT 5833	Deep hole, West side of Turneffe Caye, Belize	08 Jul. 1999	T.M. Orrell	Bentley and Wiley unpubl.	-	*Mugil trichodon*	*Mugil* sp. R	X
KF930166	-	KUT 6497	Kelly's Beach rock pools, Port Alfred, Eastern Cape, South Africa	25 Sept. 2004	K.A. Moots et al.	Bentley and Wiley unpubl.	-	*Myxus capensis*	*Pseudomyxus capensis*	M
KF930530	-	KUT 6847	South Beach, Port Launay, Mahe, Seychelles	19 Apr. 2005	K.A. Moots et al.	Bentley and Wiley unpubl.	-	*Valamugil buchanani*	*Crenimugil* sp. A	X
KJ013050	-	DB 5.2	Bulacan, Manila Bay, Central Luzon, Luzon, Philippines	20 Oct. 2012	M.A.R. Marucot	Marucot et al. unpublished	Barcoding	*Chelon subviridis*	*Planiliza subviridis*	M
KJ128451	-	NRM:52307	58.0569 N 16.8183 E, Sweden	27 Jul. 2005	M. Nilsson, S. Nilsson	Zuccon and Noren unpubl.	Barcoding	*Chelon labrosus*	*Chelon labrosus*	M
KJ128452	-	NRM:50609	Hakefjorden, Sweden	10 Jun. 2002	B. Bland	Zuccon and Noren unpubl.	Barcoding	*Chelon labrosus*	*Chelon labrosus*	M
KJ202168	-	BTN9	Calabarzon, Batangas, Philippines	1 Jun. 2012	J.S. Bejarin et al.	Ordonio et al. unpubl.	Barcoding	*Liza macrolepis*	*Planiliza* sp. H	M
KJ202169	-	BTN10	Calabarzon, Batangas, Philippines	1 Jun. 2012	J.S. Bejarin et al.	Ordonio et al. unpubl.	Barcoding	*Liza macrolepis*	*Planiliza* sp. H	M
KJ202170	-	BTN15	Calabarzon, Batangas, Philippines	1 Jun. 2012	J.S. Bejarin et al.	Ordonio et al. unpubl.	Barcoding	*Liza melinoptera*	*Planiliza* sp.	u
KJ202179	-	BTN17	Calabarzon, Batangas, Philippines	1 Jun. 2012	J.S. Bejarin et al.	Ordonio et al. unpubl.	Barcoding	*Mugil cephalus*	*Mugil* sp. I	M
KJ202180	-	BTN16	Calabarzon, Batangas, Philippines	1 Jun. 2012	J.S. Bejarin et al.	Ordonio et al. unpubl.	Barcoding	*Mugil cephalus*	*Mugil* sp. I	M
KJ552298	Ex06B6	ZFMK:50573	38.395 N 21.435 E, Mediterranean drainage, Greece	-	-	Geiger et al. 2014	Barcoding	*Mugil cephalus*	*Mugil cephalus*	M
KJ552351	Ex51D1	IUSHM 2012-1060	36.047 N 35.981 E, Orontes drainage, Turkey	-	-	Geiger et al. 2014	Barcoding	*Liza abu*	*Planiliza abu*	M
KJ552354	Ex51D2	IUSHM 2012-1060	36.047 N 35.981 E, Orontes drainage, Turkey	-	-	Geiger et al. 2014	Barcoding	*Liza abu*	*Planiliza abu*	M
KJ552761	Ex19E6	ZFMK:FSJF:ex1540	37.528 N 31.269 E, Koeprue drainage, Turkey	-	-	Geiger et al. 2014	Barcoding	*Liza ramado*	*Chelon ramado*	M
KJ552773	Ex06A5	ZFMK:50560	38.395 N 21.435 E, Mediterranean drainage, Greece	-	-	Geiger et al. 2014	Barcoding	*Liza aurata*	*Chelon auratus*	M
KJ552776	Ex22D11	ZFMK:FSJF:1935	33.889 N 6.999 W, Iqem drainage, Morocco	-	-	Geiger et al. 2014	Barcoding	*Liza ramado*	*Chelon ramado*	M
KJ552826	Ex06B2	ZFMK:50569	38.395 N 21.435 E, Mediterranean drainage, Greece	-	-	Geiger et al. 2014	Barcoding	*Chelon labrosus*	*Chelon labrosus*	M
KJ552858	Ex06B10	ZFMK:50577	38.395 N 21.435 E, Mediterranean drainage, Greece	-	-	Geiger et al. 2014	Barcoding	*Chelon labrosus*	*Chelon labrosus*	M

KJ552859	Ex06A6	ZFMK:50561	38.395 N 21.435 E, Mediterranean drainage, Greece	-	-	Geiger et al. 2014	Barcoding	*Liza aurata*	*Chelon auratus*	M
KJ552871	Ex22A8	ZFMK:FSJF:1892	33.889 N 6.999 W, Iqem drainage, Morocco	-	-	Geiger et al. 2014	Barcoding	*Chelon labrosus*	*Chelon labrosus*	M
KJ552886	Ex06A3	ZFMK:50558	38.395 N 21.435 E, Mediterranean drainage, Greece	-	-	Geiger et al. 2014	Barcoding	*Liza aurata*	*Chelon auratus*	M
KJ552892	Ex60divC12	ZFMK:FSJF:LC3	33.495 N 35.334 E, Mediterranean drainage, Lebanon	-	-	Geiger et al. 2014	Barcoding	*Chelon sp.*	*Planiliza* sp. A	u
KJ552920	Ex51A9	IUSHM 2012-1059	41.03 N 28.959 E, Istanbul drainage, Turkey	-	-	Geiger et al. 2014	Barcoding	*Liza aurata*	*Chelon auratus*	M
KJ552931	Ex06B3	ZFMK:50570	38.395 N 21.435 E, Mediterranean drainage, Greece	-	-	Geiger et al. 2014	Barcoding	*Chelon labrosus*	*Chelon labrosus*	M
KJ552943	Ex06A2	ZFMK:50557	38.395 N 21.435 E, Mediterranean drainage, Greece	-	-	Geiger et al. 2014	Barcoding	*Liza saliens*	*Chelon saliens*	M
KJ552955	Ex51B10	IUSHM 2012-1058	41.03 N 28.959 E, Istanbul drainage, Turkey	-	-	Geiger et al. 2014	Barcoding	*Liza ramado*	*Chelon ramado*	M
KJ552973	Ex06A10	ZFMK:50565	38.395 N 21.435 E, Mediterranean drainage, Greece	-	-	Geiger et al. 2014	Barcoding	*Liza saliens*	*Chelon saliens*	M
KJ553008	Ex06A7	ZFMK:50562	38.395 N 21.435 E, Mediterranean drainage, Greece	-	-	Geiger et al. 2014	Barcoding	*Liza aurata*	*Chelon auratus*	M
KJ553023	Ex51D7	IUSHM 2012-1044	41.03 N 28.959 E, Istanbul drainage, Turkey	-	-	Geiger et al. 2014	Barcoding	*Liza aurata*	*Chelon auratus*	M
KJ553053	Ex06A12	ZFMK:50567	38.395 N 21.435 E, Mediterranean drainage, Greece	-	-	Geiger et al. 2014	Barcoding	*Chelon labrosus*	*Chelon labrosus*	M
KJ553056	Ex06A8	ZFMK:50563	38.395 N 21.435 E, Mediterranean drainage, Greece	-	-	Geiger et al. 2014	Barcoding	*Liza aurata*	*Chelon auratus*	M
KJ553076	Ex06A9	ZFMK:50564	38.395 N 21.435 E, Mediterranean drainage, Greece	-	-	Geiger et al. 2014	Barcoding	*Liza aurata*	*Chelon auratus*	M
KJ553091	Ex51D3	IUSHM 2012-1060	36.047 N 35.981 E, Orontes drainage, Turkey	-	-	Geiger et al. 2014	Barcoding	*Liza abu*	*Planiliza abu*	M
KJ553106	Ex51A8	IUSHM 2012-1059	41.03 N 28.959 E, Istanbul drainage, Turkey	-	-	Geiger et al. 2014	Barcoding	*Liza aurata*	*Chelon auratus*	M
KJ553122	Ex22D6	ZFMK:FSJF:1931	33.889 N 6.999 W, Iqem drainage, Morocco	-	-	Geiger et al. 2014	Barcoding	*Liza ramado*	*Chelon ramado*	M
KJ553132	Ex06B1	ZFMK:50568	38.395 N 21.435 E, Mediterranean drainage, Greece	-	-	Geiger et al. 2014	Barcoding	*Chelon labrosus*	*Chelon labrosus*	M
KJ553145	Ex37E4	ZFMK:50575	38.395 N 21.435 E, Mediterranean drainage, Greece	-	-	Geiger et al. 2014	Barcoding	*Chelon labrosus*	*Chelon labrosus*	M
KJ553167	Ex51C7	IUSHM 2012-1057	41.03 N 28.959 E, Istanbul drainage, Turkey	-	-	Geiger et al. 2014	Barcoding	*Liza saliens*	*Chelon saliens*	M
KJ553183	Ex06A11	ZFMK:50566	38.395 N 21.435 E, Mediterranean drainage, Greece	-	-	Geiger et al. 2014	Barcoding	*Chelon labrosus*	*Chelon labrosus*	M
KJ553192	Ex22A9	ZFMK:FSJF:1892	33.889 N 6.999 W, Iqem drainage, Morocco	-	-	Geiger et al. 2014	Barcoding	*Chelon labrosus*	*Chelon labrosus*	M
KJ553197	Ex06A1	ZFMK:50556	38.395 N 21.435 E, Mediterranean drainage, Greece	-	-	Geiger et al. 2014	Barcoding	*Liza saliens*	*Chelon saliens*	M
KJ553231	Ex22D10	ZFMK:FSJF:1935	33.889 N 6.999 W, Iqem drainage, Morocco	-	-	Geiger et al. 2014	Barcoding	*Liza ramado*	*Chelon ramado*	M
KJ553246	Ex51C12	IUSHM 2012-1060	36.047 N 35.981 E, Orontes drainage, Turkey	-	-	Geiger et al. 2014	Barcoding	*Liza abu*	*Planiliza abu*	M
KJ553284	Ex22A7	ZFMK:FSJF:1892	33.889 N 6.999 W, Iqem drainage, Morocco	-	-	Geiger et al. 2014	Barcoding	*Chelon labrosus*	*Chelon labrosus*	M
KJ553709	Ex22E7	ZFMK:FSJF:1943	33.889 N 6.999 W, Iqem drainage, Morocco	-	-	Geiger et al. 2014	Barcoding	*Mugil cephalus*	*Mugil cephalus*	M
KJ553734	Ex19E5	ZFMK:FSJF:1540	37.528 N 31.269 E, Koeprue drainage, Turkey	-	-	Geiger et al. 2014	Barcoding	*Mugil cephalus*	*Mugil cephalus*	M
KJ553812	Ex06B4	ZFMK:50571	38.395 N 21.435 E, Mediterranean drainage, Greece	-	-	Geiger et al. 2014	Barcoding	*Mugil cephalus*	*Mugil cephalus*	M
KJ553862	Ex22E4	ZFMK:FSJF:1939	31.467 N 9.759 W, Ksob drainage, Morocco	-	-	Geiger et al. 2014	Barcoding	*Mugil cephalus*	*Mugil cephalus*	M
KJ553892	Ex22E8	ZFMK:FSJF:1943	33.889 N 6.999 W, Iqem drainage, Morocco	-	-	Geiger et al. 2014	Barcoding	*Mugil cephalus*	*Mugil cephalus*	M
KJ553924	Ex06B5	ZFMK:50572	38.395 N 21.435 E, Mediterranean drainage, Greece	-	-	Geiger et al. 2014	Barcoding	*Mugil cephalus*	*Mugil cephalus*	M
KJ553935	Ex19E4	ZFMK:FSJF:1540	37.528 N 31.269 E, Koeprue drainage, Turkey	-	-	Geiger et al. 2014	Barcoding	*Mugil cephalus*	*Mugil cephalus*	M
KJ622047	-	-	-	-	-	W. Chu, unpubl.	-	*Liza haematocheila*	*Planiliza haematocheila*	M

[a] EF609279, EF609494 not retained for barcode identification because used as reference by Durand et al. (2012b)
[b] JF952795, JF952796 not retained because of likely confusion in the labeling of samples
[c] JQ842245 not retained because length of sequence insufficient

Supplementary Fig. S1 Phylogenetic trees of mitochondrial haplotypes constructed from partitioned maximum-likelihood analysis of 3,885 aligned nucleotides from 16S rRNA, *COI* and *cytb* gene sequences (edited from Durand et al. 2012b). Bootstrap scores > 50% are indicated. *Asterisks* indicate nodes with a posteriori probability from partitioned Bayesian analysis > 0.95. *Vertical bars* on the right of the tree indicate statistically supported lineages that have been considered to represent distinct species (Durand and Borsa 2015) **a** *Mugil cephalus* species complex. **b** *Mugil curema* species complex

Supplementary Fig. S2 Phylogenetic trees of mitochondrial haplotypes constructed from partitioned maximum-likelihood analysis of 3,885 aligned nucleotides from 16S rRNA, *COI* and *cytb* gene sequences (edited from Durand et al. 2012b). Bootstrap scores > 50% are indicated. *Asterisks* indicate nodes with a posteriori probability from partitioned Bayesian analysis >0.95. *Vertical bars* on the right of the tree indicate statistically supported lineages that have been considered to represent distinct species (Durand and Borsa 2015). **a** Genera *Osteomugil* and *Crenimugil*, as redefined by Durand et al. (2012a). **b** Genera *Chelon* and *Planiliza*, as redefined by Durand et al. (2012a)

Supplementary Fig. S3 Neighbor-joining tree of 829 partial *COI*-gene sequences belonging to Mugilidae, including the 261 sequences of Durand et al. (2012 a,b) used as reference and 568 other sequences retrieved from GenBank on 21 February 2015. Distances were estimated using the K2P model in MEGA5 (Tamura et al. 2011). Bootstrap score indicated at a node when > 70%. *Vertical bars* on the right of the tree indicate strongly-supported lineages that represent distinct species according to Durand and Borsa (2015). Sub-trees of the *Mugil cephalus* and the *M. curema* species complexes are shown in Supplementary Figs. 4 and 5, respectively; those for the genera *Osteomugil*, *Crenimugil*, *Chelon*, and *Planiliza* are shown in Supplementary Figs. 6-9, respectively

Supplementary Fig. S4 Detail of sub-tree that represents *COI* haplotypes in the *Mugil cephalus* species complex, from the NJ tree of Supplementary Fig. S3. Bootstrap score indicated at a node when > 70%. *Vertical bars* on the right of the tree indicate strongly-supported lineages that represent distinct species according to Durand and Borsa (2015)

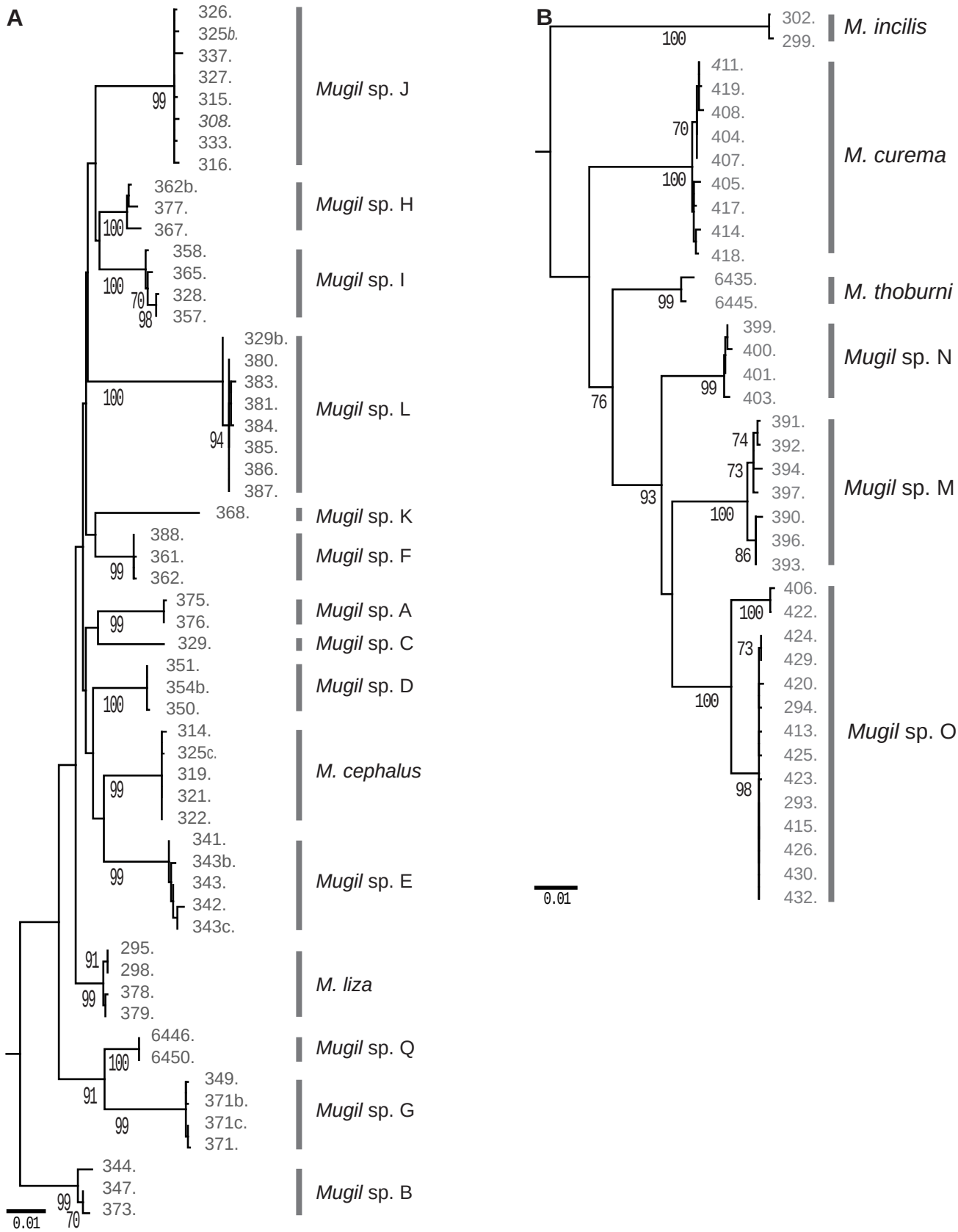
Supplementary Fig. S5 Detail of sub-tree that represents *COI* haplotypes in the *Mugil curema* species complex, from the NJ tree of Supplementary Fig. S3. Bootstrap score indicated at a node when > 70%. *Vertical bars* on the right of the tree indicate strongly-supported lineages that represent distinct species according to Durand and Borsa (2015)

Supplementary Fig. S6 Detail of sub-tree that represents *COI* haplotypes in the genus *Osteomugil*, from the NJ tree of Supplementary Fig. S3. Bootstrap score indicated at a node when > 70%. *Vertical bars* on the right of the tree indicate strongly-supported lineages that represent distinct species according to Durand and Borsa (2015)

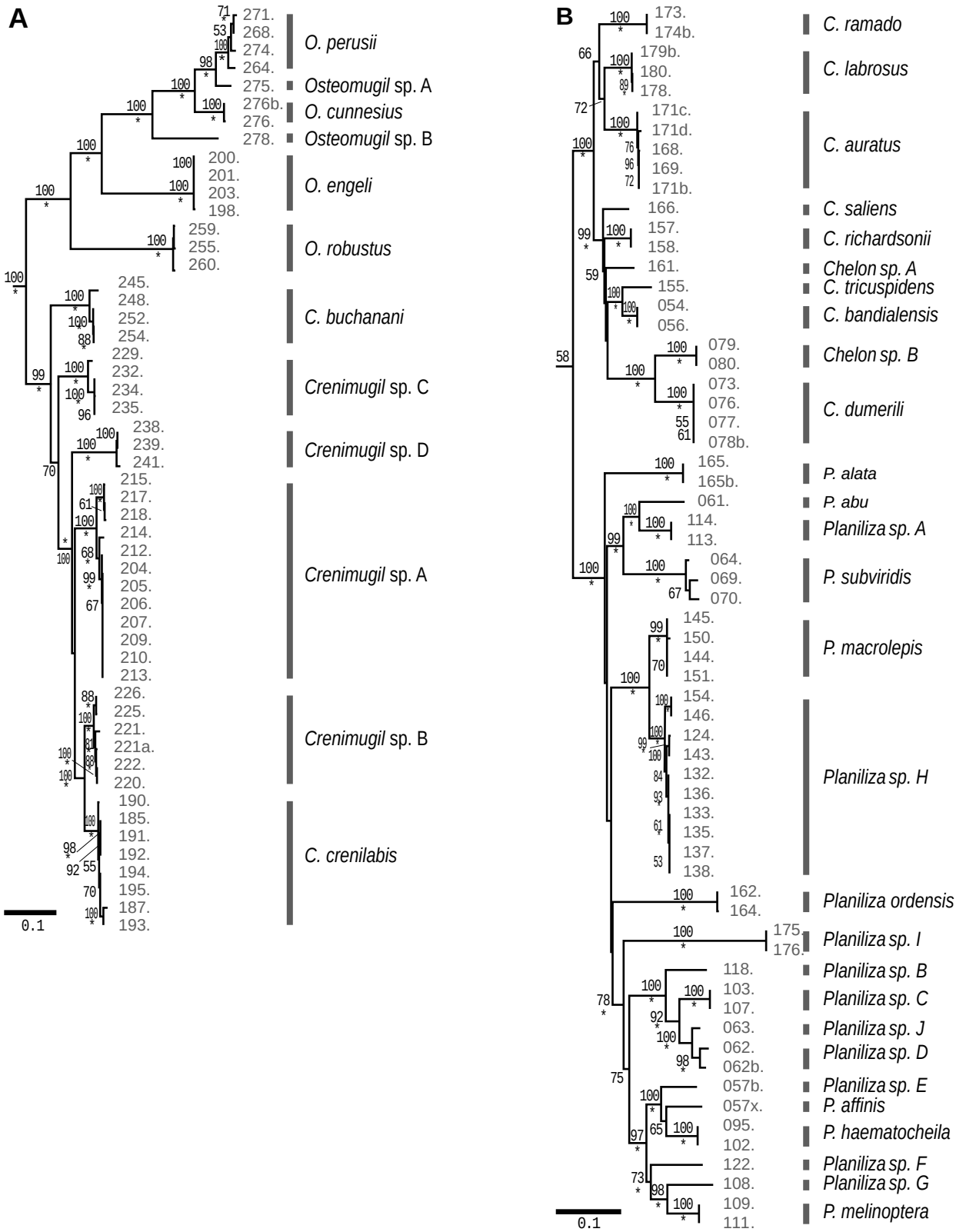
Supplementary Fig. S7 Detail of sub-tree that represents *COI* haplotypes in the genus *Crenimugil*, from the NJ tree of Supplementary Fig. S3. Bootstrap score indicated at a node when > 70%. *Vertical bars* on the right of the tree indicate strongly-supported lineages that represent distinct species according to Durand and Borsa (2015)

Supplementary Fig. S8 Detail of sub-tree that represents *COI* haplotypes in the genus *Chelon*, from the NJ tree of Supplementary Fig. S3. Bootstrap scores are indicated at a node when > 70%. *Vertical bars* on the right of the tree indicate strongly-supported lineages that represent distinct species according to Durand and Borsa (2015)

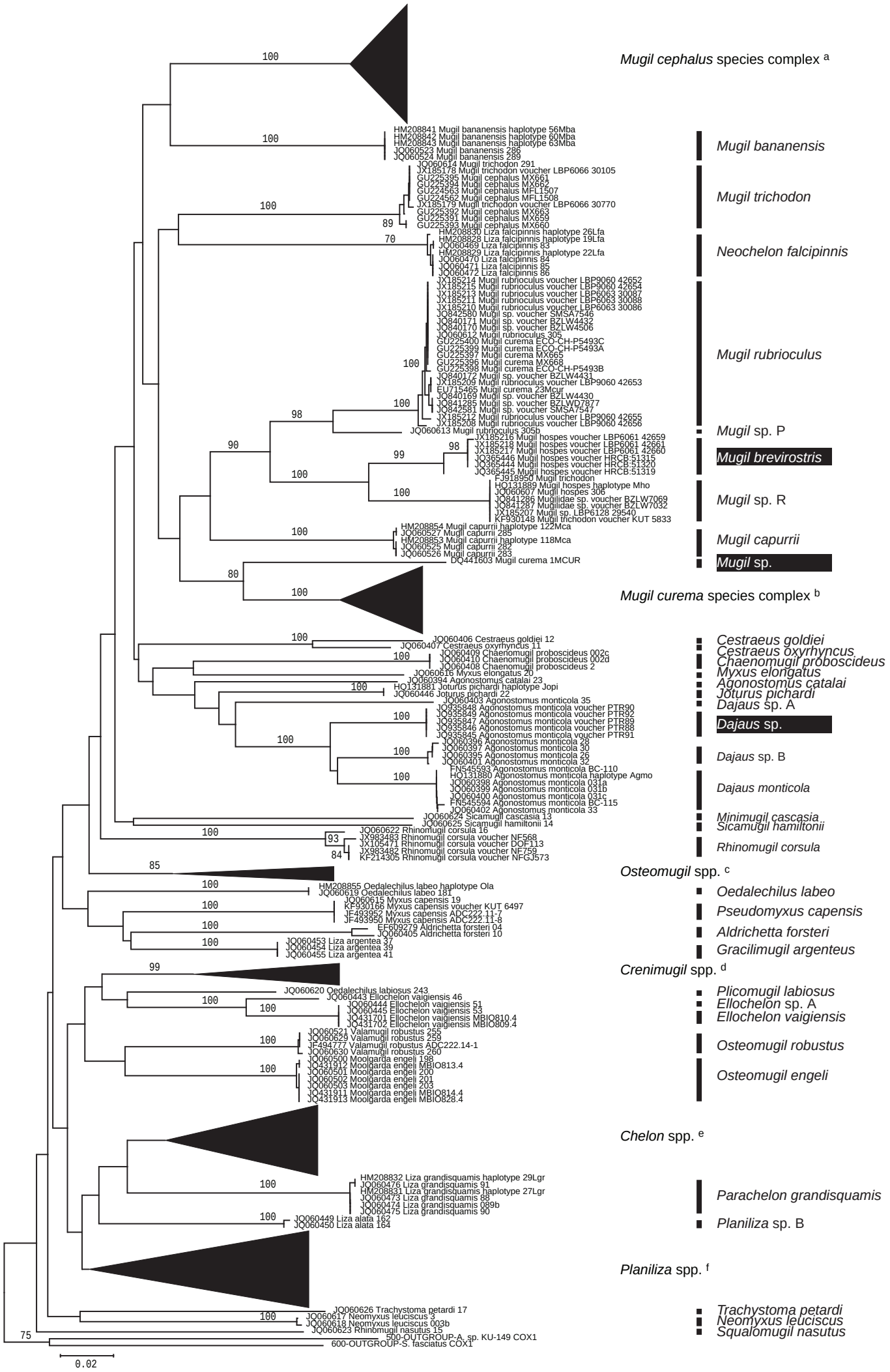
Supplementary Fig. S9 Detail of sub-tree that represents *COI* haplotypes in the genus *Planiliza*, from the NJ tree of Supplementary Fig. S3. Bootstrap scores indicated at a node when > 70%. *Vertical bars* on the right of the tree indicate strongly-supported lineages that represent distinct species according to Durand and Borsa (2015)



Supplementary Fig. S1



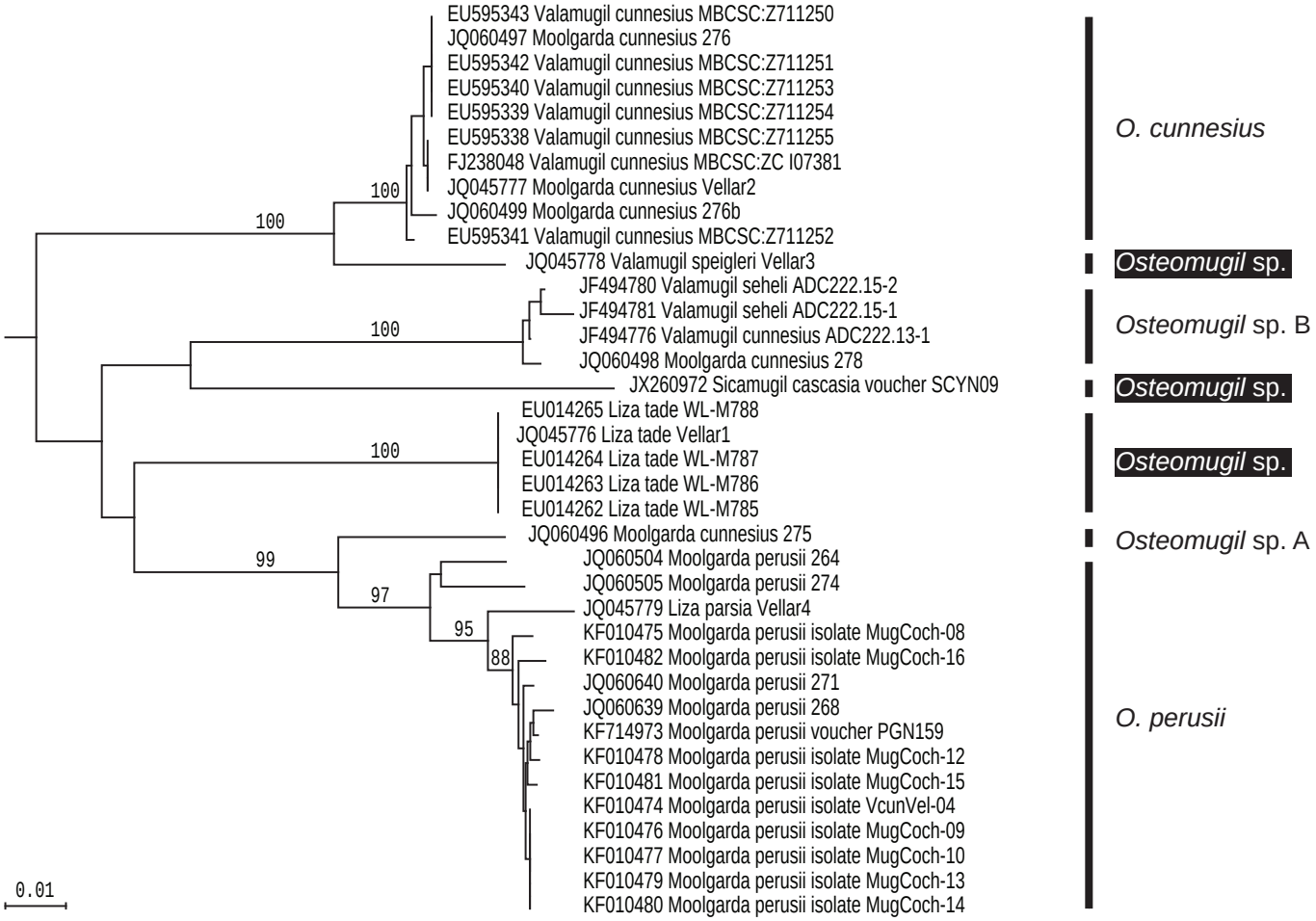
Supplementary Fig. S2



Supplementary Fig. S3

Supplementary Fig. S4

Supplementary Fig. S5



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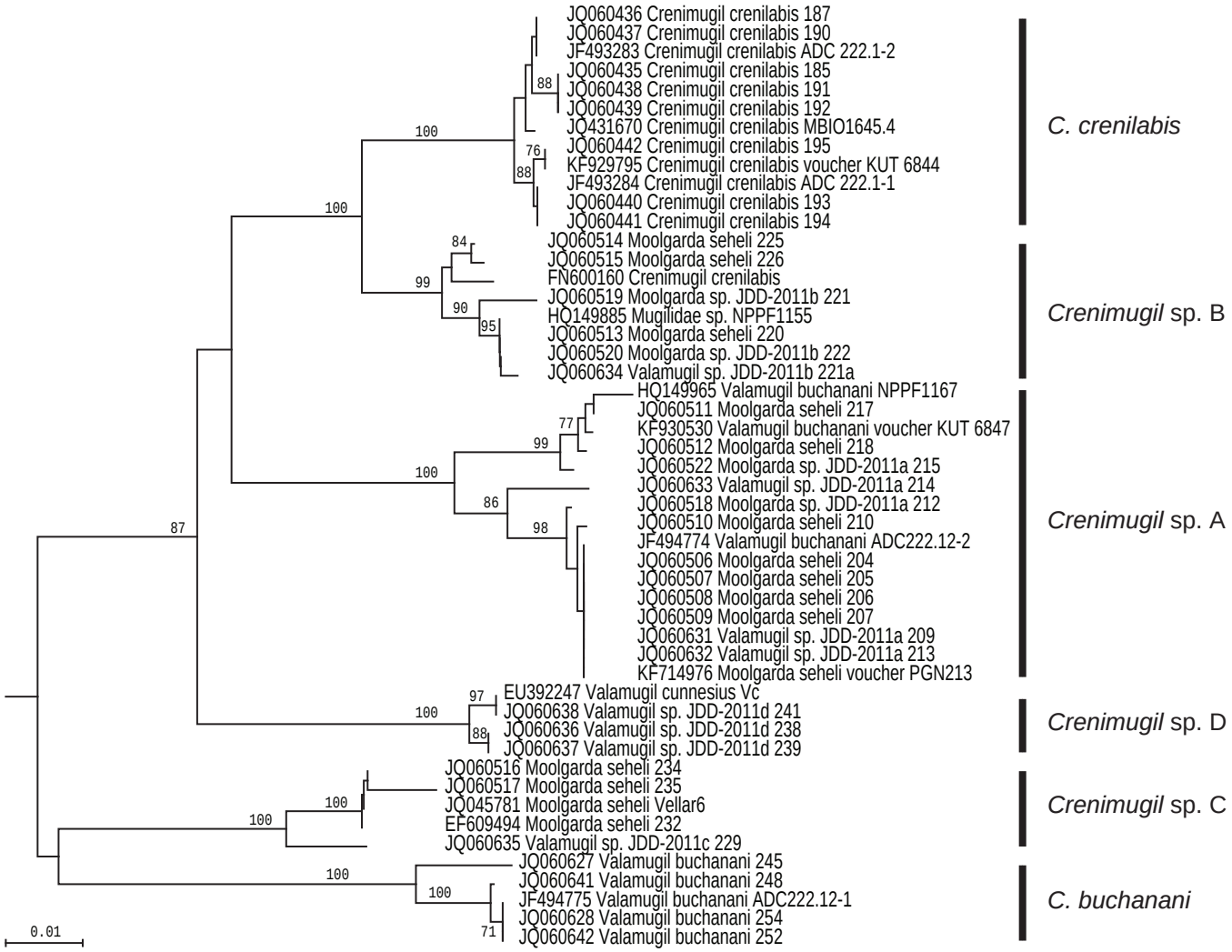
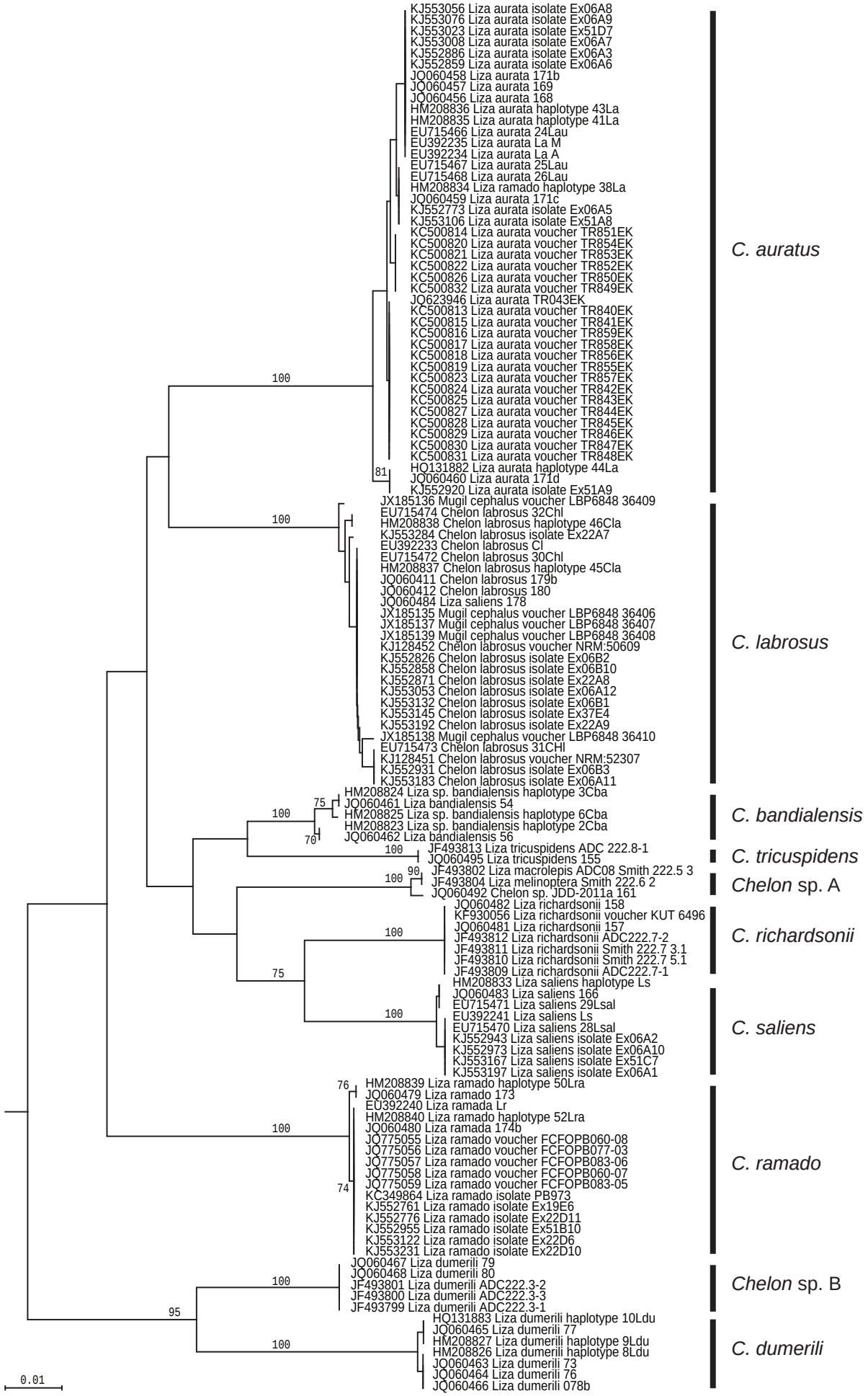
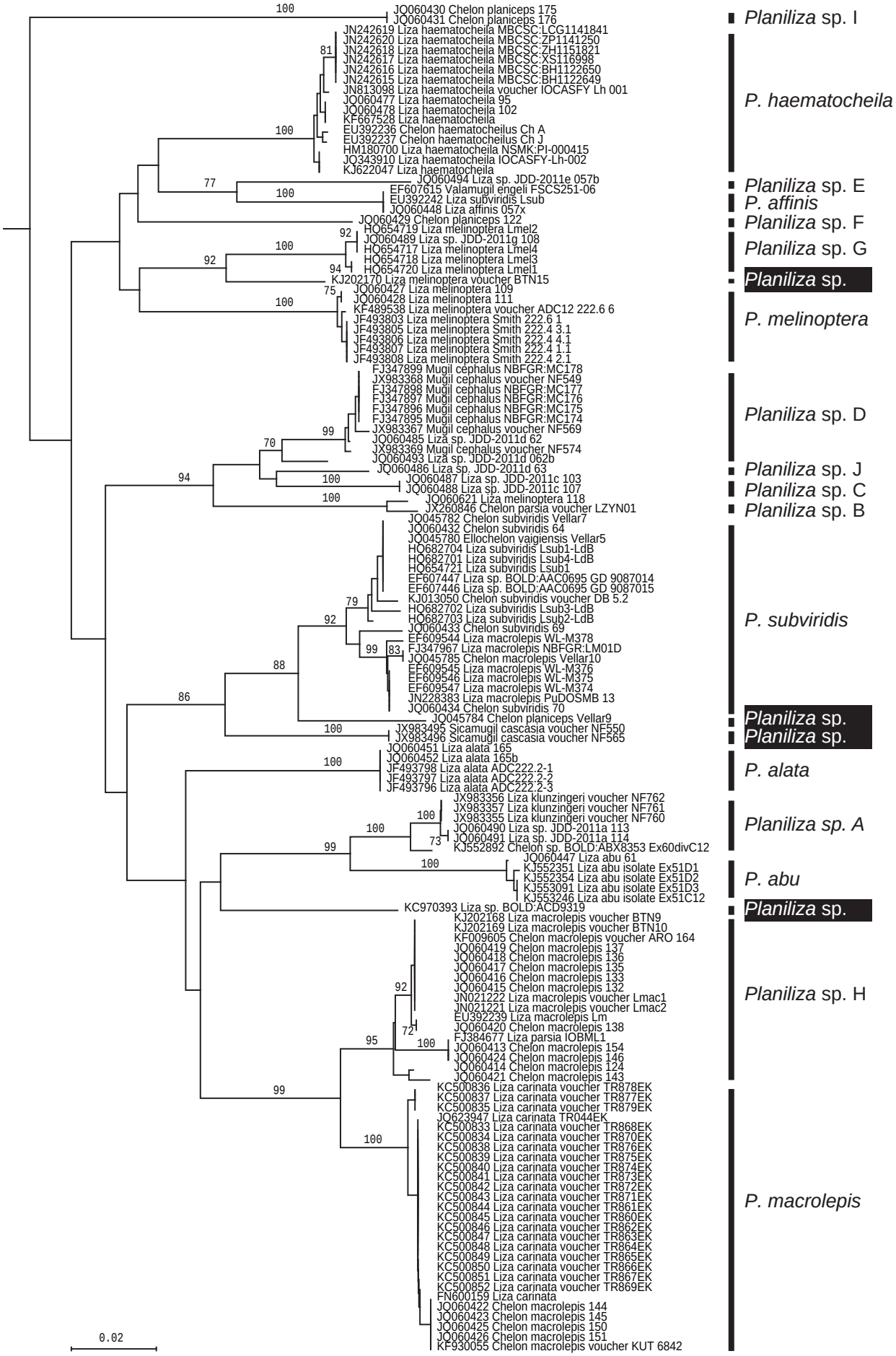


Supplementary Fig. S7



Supplementary Fig. S8



Supplementary Fig. S9