

# AS-ISK v2.3 USER GUIDE

RELEASE 2.3.3

## DECISION SUPPORT TOOLS

INVASIVE SPECIES IDENTIFICATION KITS

*Background and guidance in the use of the Aquatic Species Invasiveness Screening Kit*



An adaptation of the Pheloung, Williams & Halloy (1999) 'Weed Risk Assessment' toolkit

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## CREDITS

This electronic toolkit is Crown Copyright 2016©. As such, AS-ISK v2.3 is freeware and may be freely distributed provided this notice is retained. No warranty, expressed or implied, is made and users should satisfy themselves as to the applicability of the results in any given circumstance.

The Aquatic Species Invasiveness Screening Kit (AS-ISK) takes its origin from questions (Qs) in the Weed Risk Assessment (WRA) toolkit of P.C. Pheloung, P.A. Williams & S.R. Halloy (1999; [www.daff.gov.au/ba/reviews/weeds/system](http://www.daff.gov.au/ba/reviews/weeds/system)). With their permission, the WRA architecture and Qs were adapted to create the Fish Invasiveness Screening Kit (FISK v1: Copp et al. 2009), which was subsequently enhanced to create FISK v2 (Lawson et al. 2013). By a backward process, the Qs of FISK v2 were used as a base for the creation of the generic screening module of the European Non-native Species in Aquaculture Risk Analysis Scheme (ENSARS), which was developed for the EU Regulation on the use of alien species in aquaculture (Copp et al. 2016a). The AS-ISK was created by combining the generic screening module of ENSARS (Copp et al. 2016a, b) and FISK v2. The Qs of the AS-ISK were revised or replaced by G.H. Copp (Cefas–Lowestoft, U.K.), L. Vilizzi (University of Łódź, Poland), L. Miossec and P. Gouilletquer (IFREMER, Nantes, France), A.S. Tarkan (Muğla Sıtkı Koçman University, Turkey), and P.D. Stebbing and H. Tidbury (Cefas–Weymouth, U.K.). The VBA for Excel and computational programming of AS-ISK v1 and v2 was undertaken by L. Vilizzi, elaborated and expanded from the Excel spreadsheet in the original Weed Risk Assessment (WRA) toolkit of Pheloung et al. (1999) and from FISK v1 VisualBasic for Excel. We are grateful to Pheloung et al. (1999) for providing an open version of the original WRA spreadsheet. Historical information on the development of FISK and related screening tools from the WRA template can be found in the ‘background and guidance’ document at [www.cefas.co.uk/nns/tools/](http://www.cefas.co.uk/nns/tools/).

Funding for the creation of the FISK v1 and v2 was provided by the UK Department of Environment, Food & Rural Affairs (Defra). The creation of the ENSARS, including its generic screening module, was provided principally by the European Commission (Project no.: 044142 [IMPASSE – Environmental impacts of alien species in aquaculture] for Coordination Action Priority FP6 2005-SSP-5A, Sustainable Management of Europe’s Natural Resources), with additional financial support from Defra. The creation of the AS-ISK was initially supported by funding from Defra and a 2221 Fellowship Programme grant from the Scientific and Technological Research Council of Turkey (TÜBİTAK) and the Department of Science Fellowships and Grant Programmes (BİDEB).

The graphic image in the front menu of the AS-ISK was designed by E.A. Copp (graphic designer) using photos kindly provided by: background *Sargassum muticum* (believed to have been provided by I. Laing, formerly of Cefas), and from left to right: zebra mussels (purchased from [www.istockphoto.com/gb](http://www.istockphoto.com/gb)), wireweed (M. Werner), American mink and brown trout (GBNNSS), lionfish (purchased from [www.istockphoto.com/gb](http://www.istockphoto.com/gb)), and Eurasian marsh frog (F. Holmes).



## OVERVIEW

The AS-ISK is based on questions (Qs) in the WRA (Pheloung et al. 1999), which were adapted to create FISK v1 (Copp et al. 2009) and then FISK v2 (Lawson et al. 2013). These were further adapted to create the generic screening module of the European Non-native Species in Aquaculture Risk Analysis Scheme (ENSARS), which was developed for the EU Regulation on the use of alien species in aquaculture (Copp et al. 2016a). During this developmental process, the AS-ISK's questions and related information-gathering components were revised and structured to create a decision-support tool that complies with the 'minimum standards' (Roy et al. 2018) for the assessment of non-native species for the recent EC Regulation No. 1143/2014 on the prevention and management of the introduction and spread of invasive alien species (European Commission 2014). The AS-ISK v2.3 is therefore an enhanced version of the AS-ISK v1 (Copp et al. 2016b).

### Launching AS-ISK v2.3

AS-ISK v2.3 consists of a Microsoft Excel® macro-enabled worksheet (.xlsm). Depending on the default security settings in the local computer's Excel installation, upon launching AS-ISK v2.3 the Assessor might be warned whether they want to 'Enable Editing' and then 'Enable Macros'. These two steps are necessary for AS-ISK v2.3 to open successfully. Upon opening, a preliminary check is done by the program for Excel version compatibility. In this respect, AS-ISK v2.3 will run without issue under Windows® 10/11 with Excel 365. Also, the AS-ISK will not run under the Mac OS unless a (third-party) Windows virtualisation software is used.

Any workbooks open in the Excel instance in which AS-ISK v2.3 is being launched will be automatically closed upon launching the program. This is an 'enforced' procedure due to the lack of dynamic data exchange (DDE) support since release of Excel 2016, which will also cause other Excel workbooks to not open within the instance of Excel in which AS-ISK v2.3 is running (but which can still be opened in a separate instance of Excel launched from the Windows Start Menu by typing "Excel /x" or "Excel.exe /x").

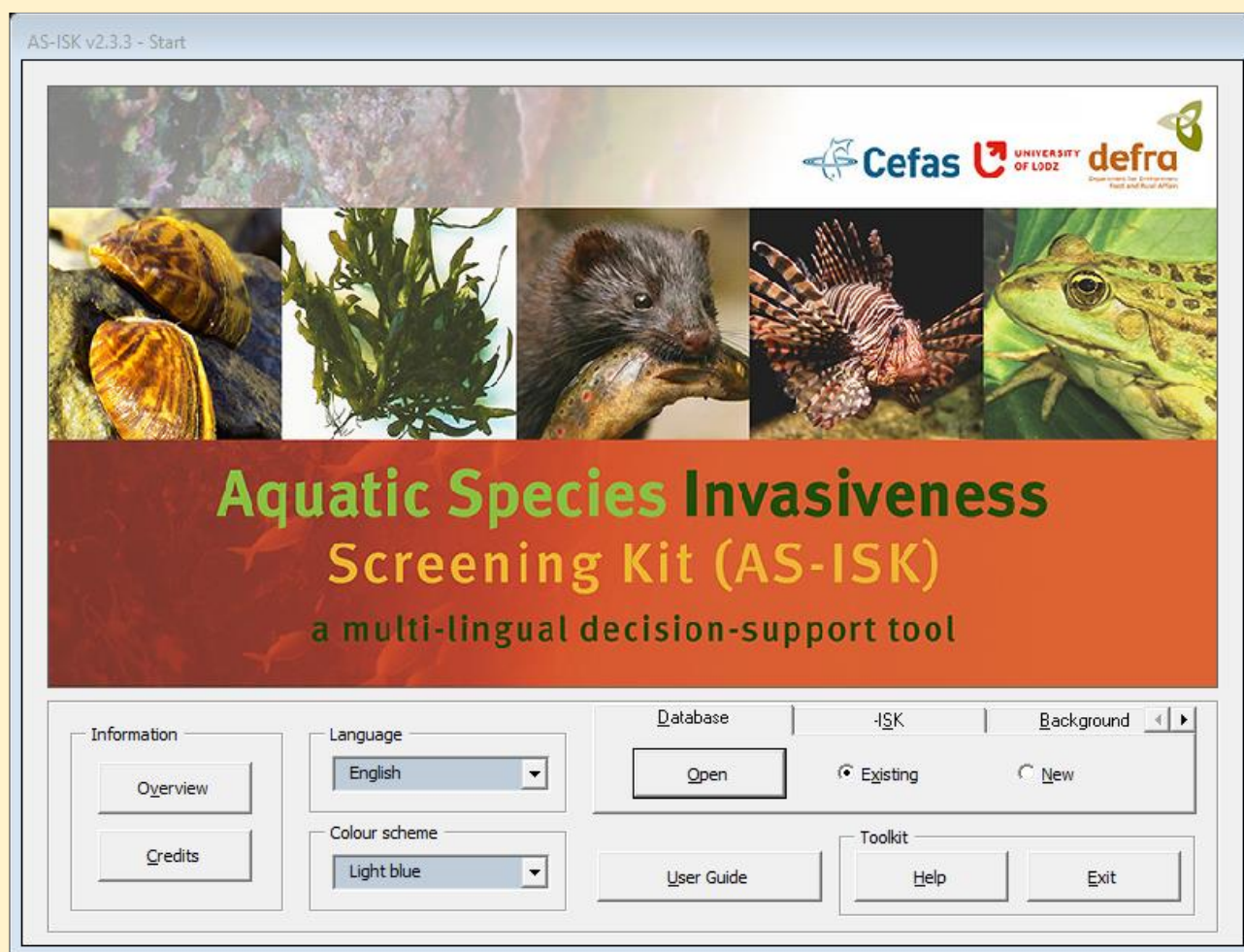
Following preliminary compatibility check, the *Start* dialog is opened and the program's GUI will default to the local *Language* of the Assessor's Office/Excel version (if available), else to the English language. Also, the 'light blue' *Colour scheme* is selected by default.

To ensure that the AS-ISK will open and display properly (i.e. GUI and information/error messages) in the user's local language, the following settings are needed:

1. The language of Microsoft Excel (Office) must match the user's local language: *File* → *Options* → *Language* → *Office display language*, then select the desired language and move it up to top of list, then press *OK* and restart Excel;
2. The language of the Windows OS (note that this refers to Windows 10) must not necessarily match that of the user's local language [but to do so: *Start* → *Settings* → *Time & Language* → *Region* → *Country or region* and scroll to select, then click on *Additional time, date & regional settings* → *(Region) Change date, time or number formats* → in the *Administrative (tab)* click on *Change system locale*, then scroll to select]. However, for most languages other than English, the box reading *Beta: Use Unicode UTF-8 for worldwide language support* must be ticked, then press *OK* and *Restart now* (whilst the System locale can remain in English).



# START



As a stand-alone, dialog-driven Excel-based application, AS-ISK v2.3 requires a spreadsheet located on the Assessor's local computer to be opened (or created) as the assessment database source file. Note that as many new sessions (i.e. spreadsheets opened, created or imported) can be run as desirable by simply returning from the *Main Assessment Workspace* to the *Start* dialog.

## Information

### Overview

Clicking this button opens the pdf Help file (AS-ISK\_v2\_3\_3\_Help\_Overview.pdf) that provides an overview of the program's general features. Note that the AS-ISK v2.3 Help files must be in the same folder as the AS-ISK v2.3 program.

### Credits

Clicking this button opens the pdf Help file with the credits (AS-ISK\_v2\_3\_3\_Help\_Credits.pdf). Note that the AS-ISK v2.3 Help files must be in the same folder as the AS-ISK v2.3 program.

## Language

Currently, AS-ISK v2.3 is available in 32 languages (Copp et al. 2021): English, Czech, German, Spanish, Filipino, French, Croatian-Serbian and related languages, Italian, Hungarian, Dutch, Polish, Portuguese, Romanian, Albanian, Slovak, Slovenian, Swedish, Vietnamese, Turkish, Greek, Bulgarian, Macedonian, Russian, Georgian, Hebrew, Urdu, Arabic, Persian, Thai, Korean, Japanese, and Chinese (simplified). Note that the order of the languages is based on the language's native spelling, which is also used in the corresponding drop-down list. The list of *Language contributors*, who can be contacted for any queries about the language-specific program's interface, is provided at the end of this document. Importantly, any inconsistencies/errors in translation of the GUI from the original English language lie entirely with the corresponding language contributors (contactable at the corresponding email addresses).

Depending on the local computer's Excel language version, AS-ISK v2.3 will default to the local (i.e. Office/Excel) language if supported, otherwise to English. However, should an AS-ISK v1 or v2 database spreadsheet (noting that a database spreadsheet generated by AS-ISK v2.3 still retains the v2 format and notation) in a language different from the one selected from the list be opened, then, following the required checks, a message will be issued whether the Assessor wants to change the AS-ISK v2.3 interface language to the one of the spreadsheet being opened [noting that for an AS-ISK v1 spreadsheet the available languages were only English, Spanish, French, Italian, Turkish and Chinese (simplified)]. Also, this feature applies whenever an S-FISK database spreadsheet (i.e. in Spanish: see *-ISK (tab) – Import*) is opened in an AS-ISK v2.3 language different from the Spanish.

Note that as many more languages as desirable can be added to the AS-ISK v2.3 toolkit in view of future releases. To this end, the supporting language templates will be provided for translation upon request to any interested contributors.

## Colour scheme

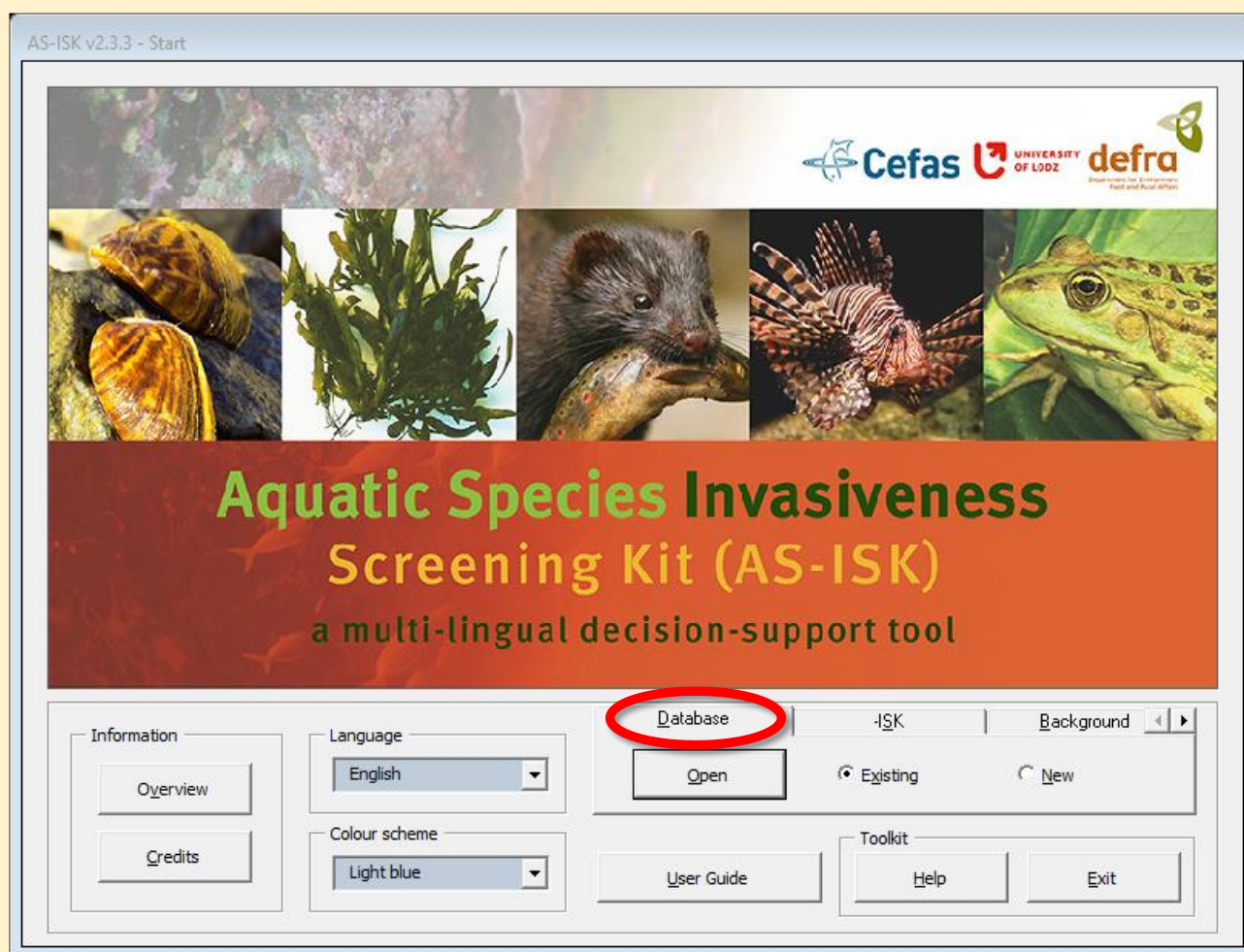
The AS-ISK v2.3 GUI is available in ten colours: four light-shade colours including 'blue' (default), 'green', 'brown' and 'grey'; one 'neutral' colour; four dark-shade colours including 'blue', 'green', 'brown' and 'grey'; and 'black'.

The colour scheme of choice applies to all 'active' (i.e. editable fields) and 'semi-active' (i.e. non-editable fields, labels, drop-downs) controls making up the AS-ISK v2.3 GUI.

Because active controls in AS-ISK v2.3 also behave as 'smart' controls (see *Main Assessment Workspace*, *Wizard*, *New/Edit*, *Replicate* and *Q&A* dialogs) by changing aspect/behaviour depending on the Assessor's interaction with the GUI and the assessment database features, the 'light yellow' and 'light red' colours are reserved for the GUI only.

The *Colour scheme* of choice can be changed by the Assessor at any time during a session.

## Database (tab)



### Open

Clicking this button will open either an *Existing* or a *New* database, depending on the option selected.

### Existing

Before opening an existing database, which is selected from the corresponding (pop-up) dialog window, a series of checks is performed to ensure that the AS-ISK (v1 or v2) spreadsheet being loaded meets all requirements for formatting and consistency and whether it contains any duplicate entries (which are automatically removed). If any formatting issues or inconsistent/duplicate entries are detected during this 'screening' phase, then the Assessor is notified at any stage of the process through a (series of) (error) message(s), which, whenever applicable, include(s) reference to the row and column of the cell in the spreadsheet where the (first) error occurred. Notably, an existing spreadsheet cannot be loaded into AS-ISK v2.3 unless it meets all necessary formatting and consistency requirements. However, as long as the Assessor does not tamper with any of the entries/formatting of the original AS-ISK v1 spreadsheet, no issues should be encountered. Whereas the new password-protected AS-ISK v2 spreadsheet prevents any such editing/tampering-related issues.

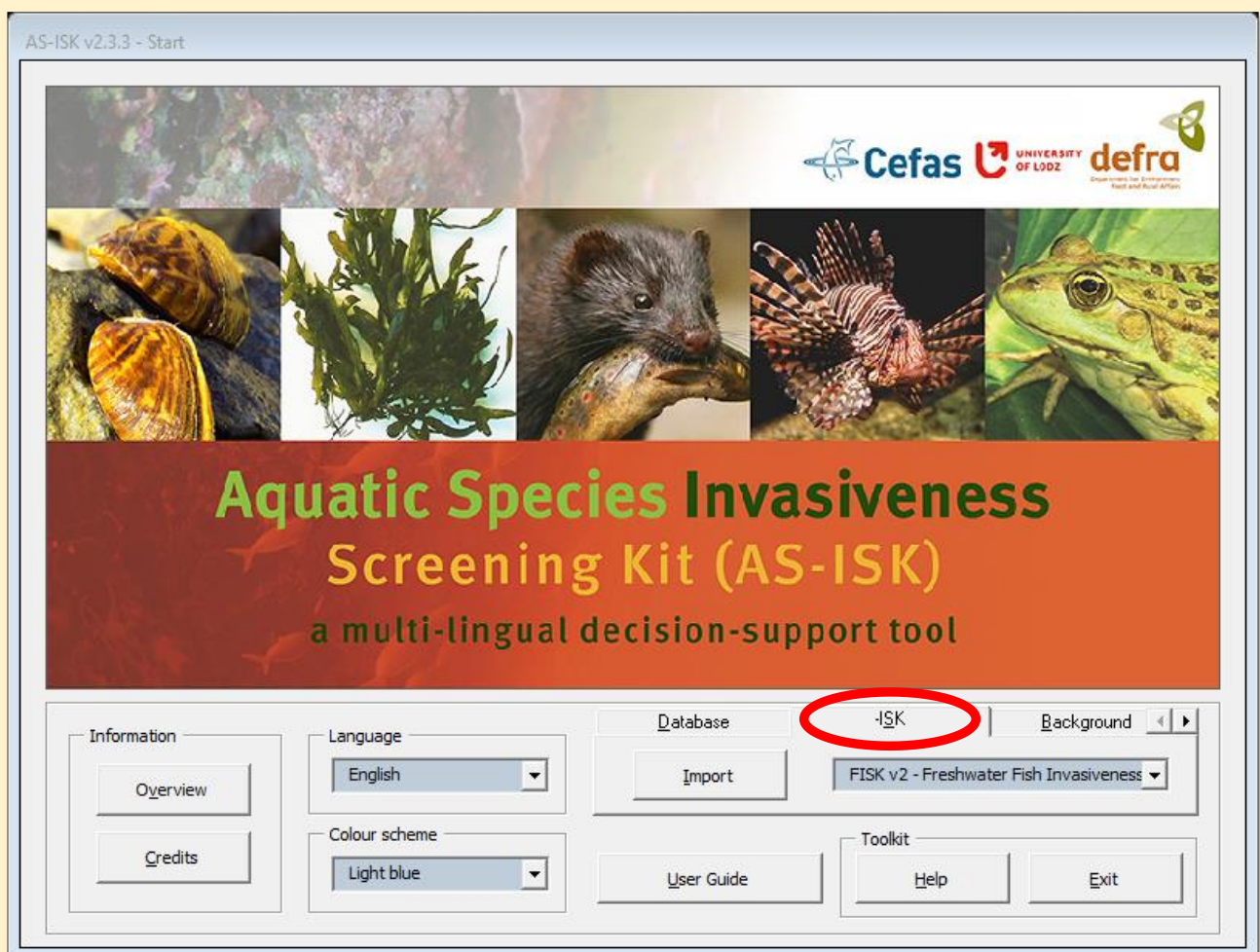


Following the screening phase, the spreadsheet data are loaded into AS-ISK v2.3 and: (i) a check is done to ensure that for each assessment all Q-wise corresponding entries for *Response*, *Confidence* and *Justification* are present (if not, the corresponding 'orphaned' entries are cleared from the assessment, and the Assessor is notified in regard); and (ii) each assessment in the database is re-scored to generate all relevant statistics for scores, outcomes and thresholds (the latter, if applicable, noting that the older AS-ISK v1 'thresholds' are automatically removed due to incompatibility with those in AS-ISK v2), but with the original assessment time and date of creation preserved if already present (see also *Main Assessment Workspace – Utilities (tab) – Re-score*). The status bar (located at the bottom left of the Excel window) will indicate progress with both the checking and re-scoring phases should the process take some time (i.e. in case of large to very large databases). The *Main Assessment Workspace* dialog is then opened with the *Assessment List* populated with the existing assessment(s).

### New

In case a *New* database is created, then the *Main Assessment Workspace* dialog is opened showing a blank *Assessment List*.

### -ISK (tab)



## Import

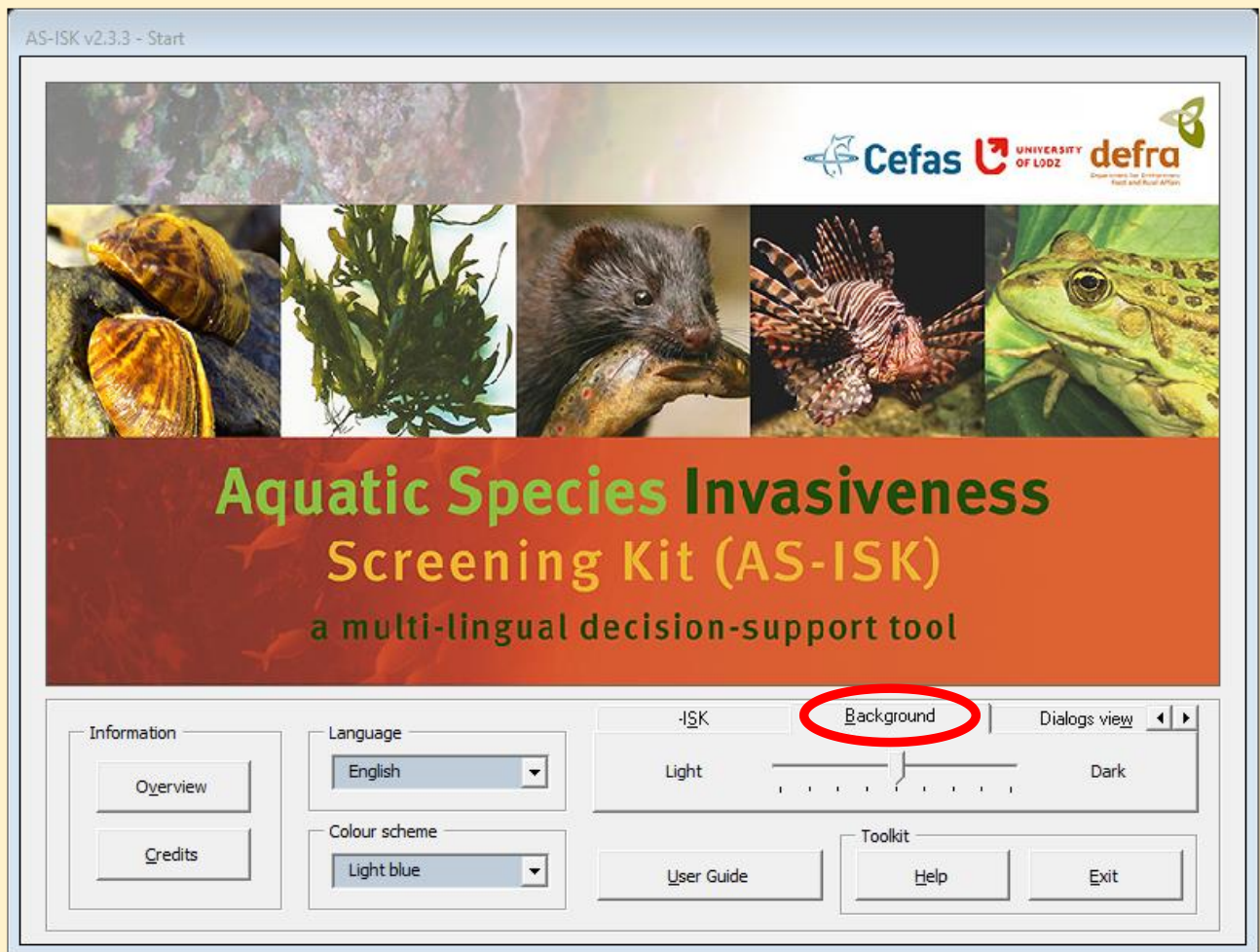
Clicking this button will open the -ISK database selected from the drop-down list. This option allows the Assessor to import an existing database spreadsheet (.xls or .xlsx) containing previous assessment(s) carried out under one of the available seven '-ISK family' tools in total (see [www.cefas.co.uk/nns/tools/](http://www.cefas.co.uk/nns/tools/)):

1. FISK v2 – Freshwater Fish Invasiveness Screening Kit (v2)
2. FISK v1 – Freshwater Fish Invasiveness Screening Kit (v1)
3. S-FISK – Freshwater Fish Invasiveness Screening Kit (Spanish)
4. Amph-ISK – Amphibian Invasiveness Screening Kit
5. FI-ISK – Freshwater Invertebrate Invasiveness Screening Kit
6. MFISK – Marine Fish Invasiveness Screening Kit
7. MI-ISK – Marine Invertebrate Invasiveness Screening Kit

so that previous assessments can be updated to the AS-ISK protocol. As per an *Existing* database (see above), a series of preliminary checks is performed to ensure that the -ISK spreadsheet meets all the formatting, consistency and duplicate entry requirements as described above. Importantly, an -ISK spreadsheet cannot be loaded into AS-ISK v2.3 unless it meets all these necessary requirements. However, as long as the Assessor does not tamper with any of the entries/formatting of the original -ISK spreadsheet (i.e. as generated by any of the -ISK programs' database 'Output' option), no issues should be encountered. Notably, given that 33 Basic Risk Assessment (BRA) AS-ISK Qs out of the original 49 -ISK Qs have retained backward compatibility with -ISK (with the remaining 16 BRA Qs being entirely new and the additional six Climate Change-related Qs being exclusive to the AS-ISK: see Copp et al. 2016b), the maximum number of answered Qs for each assessment loaded into the new AS-ISK database is 33 (out of 55).

Similar to opening an *Existing* database, the initial screening phase is followed by final checking and *Re-score* operations before the data can be loaded into the *Assessment List* of the *Main Assessment Workspace*. In addition, during the *Import* phase the Assessor is asked (through a dialog box) to enter the name of the Risk assessment area for which the assessment(s) were carried out but noting that in case of entering a text string longer than 40 characters (including spaces) and/or containing the unallowed characters \/:\*?"<>|, the corresponding entries are eventually removed. If no name for the Risk assessment area is entered or a blank string results after the above checking for unallowed character entries (or trailing spaces), then the generic term 'RA Area' is entered by default.

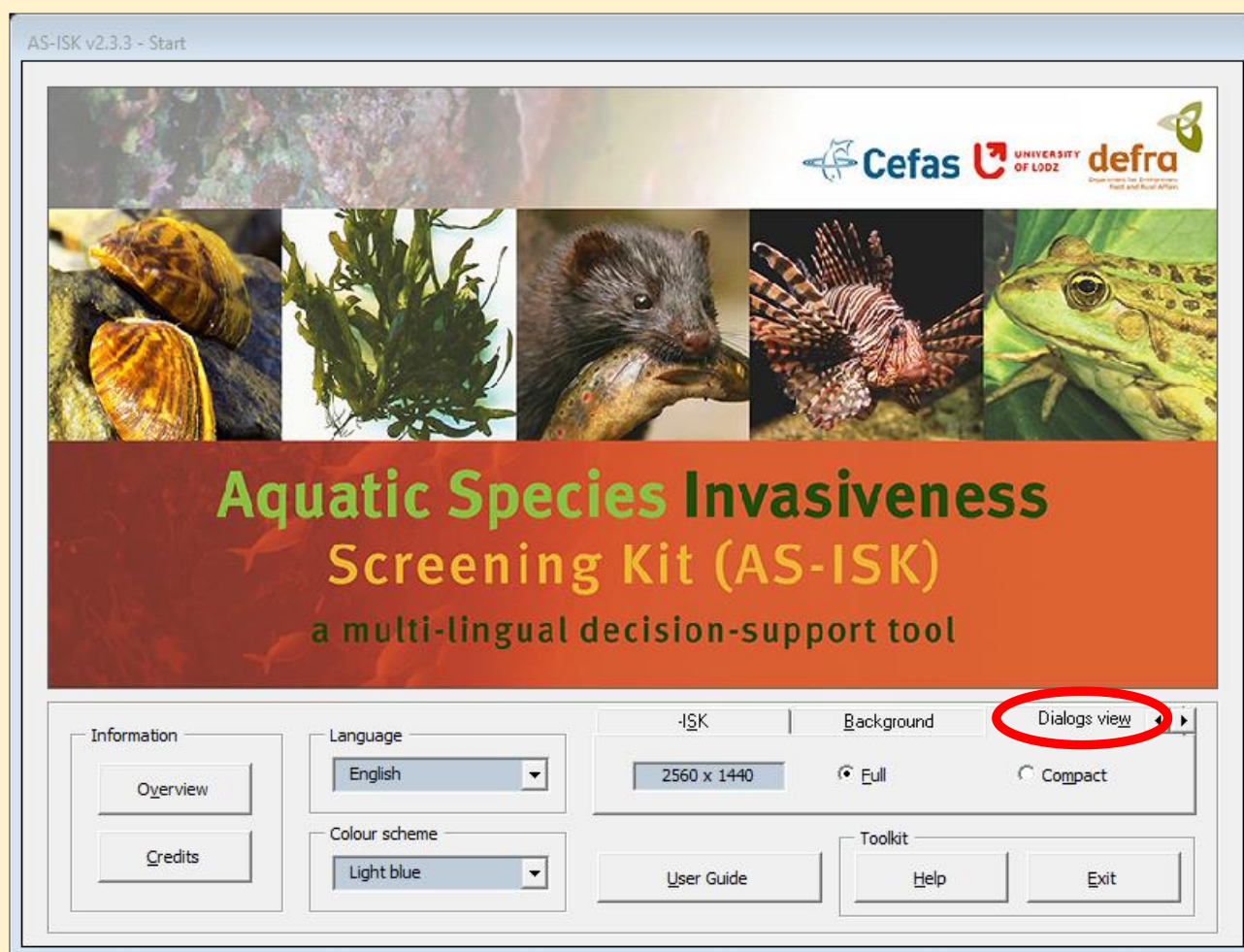
## Background (tab)



Dragging this slider changes the background colour of the Excel window in which the AS-ISK is running. Nine shades are available as combinations of white and black: 100% white, 0% black; 85% white, 15% black; 75% white, 25% black; 65% white, 35% black; 50% white, 50% black (default); 35% white, 65% black; 25% white, 75% black; 15% white, 85% black; 0% white, 100% black.



## Dialogs view (tab)



Depending on the screen resolution of the computer where AS-ISK v2.3 is being run, the *Main Assessment Workspace* and *Q&A* dialogs will display in either *Full* or *Compact* view. In *Full* view, the *Assessment List* in the *Main Assessment Workspace* will display up to 26 rows (i.e. assessments, if available) at a time, and the *Justification* field in the *Q&A* dialog up to nine lines of text at a time. In *Compact* view, the *Assessment List* in the *Main Assessment Workspace* will display up to 16 rows (i.e. assessments, if available) at a time, and the *Justification* field in the *Q&A* dialog up to two lines of text at a time.

The threshold resolution below or equal to which AS-ISK v2.3 will display in *Compact* view is 1440 pixels in width and 900 pixels in height. As the screen resolution is automatically identified by AS-ISK v2.3 upon opening (and indicated in the corresponding screen resolution label), the *Full* or *Compact* view are selected by default as applicable.

### Full

This option is automatically selected (i.e. by default upon opening AS-ISK v2.3) if the screen resolution is greater than 1440 pixels in width and 900 pixels in height.



### *Compact*

This 'option' is the only one available if the screen resolution is less than or equal to 1440 pixels in width and 900 pixels in height. However, under a screen resolution greater than 1440 pixels in width and 900 pixels in height this option can still be selected if desired.

### **User Guide**

Clicking this button opens the pdf Help file (AS-ISK\_v2\_3\_3\_Help\_UserGuide.pdf) for the current dialog. Note that the AS-ISK v2.3 Help files must be in the same folder as the AS-ISK v2.3 program.

### **Toolkit**

#### *Help*

Clicking this button opens the pdf Help file (AS-ISK\_v2\_3\_3\_Help\_Start.pdf) for the current dialog. Note that the AS-ISK v2.3 Help files must be in the same folder as the AS-ISK v2.3 program.

#### *Exit*

Clicking this button quits the current session and Excel.

# MAIN ASSESSMENT WORKSPACE

AS-ISK v2.3.3 - Main Assessment Workspace

ID	Cat	Risk assessment area	Taxon name	Common name	Assessor	Answered	Thresholds	BRA Score	BRA Outcome	BRA+CCA Score	BRA+CCA Outcome	Date and Time
1	7	Northern Gulf of Mexico	Conger verreauxi	southern conger eel	Mike Norberg, Alex F	55/55	12.5;12.5	13	High	13	High	11/02/21 15:01
2	7	Northern Gulf of Mexico	Dendrochirus barberti	Hawaiian lionfish	Timothy J. Lyons	55/55	12.5;12.5	6	Medium	6	Medium	18/07/17 13:43
3	7	Northern Gulf of Mexico	Dendrochirus biocellatus	twospot turkeyfish	Timothy J. Lyons	55/55	12.5;12.5	3	Medium	3	Medium	02/03/17 11:53
4	7	Northern Gulf of Mexico	Dendrochirus brachypterus	dwarf lionfish	Timothy J. Lyons	55/55	12.5;12.5	12	Medium	12	Medium	15/08/17 19:10
5	7	Northern Gulf of Mexico	Dendrochirus zebra	zebra turkeyfish	Timothy J. Lyons	55/55	12.5;12.5	10	Medium	10	Medium	09/08/17 13:16
6	7	Northern Gulf of Mexico	Fundulus heteroclitus heterod	mummichog	Jessica Dutton	55/55	12.5;12.5	14	High	14	High	09/07/21 20:43
7	7	Northern Gulf of Mexico	Heniochus diphreutes	false Moorish idol	Justin Procopio	55/55	12.5;12.5	7	Medium	9	Medium	20/06/21 17:36
8	7	Northern Gulf of Mexico	Lythyrpnus dalli	bluebanded goby	Mike Norberg, Alex F	55/55	12.5;12.5	4	Medium	4	Medium	11/02/21 15:00
9	7	Northern Gulf of Mexico	Muraenesox cinereus	dogtooth pike conger	Justin Procopio	55/55	12.5;12.5	15	High	23	High	21/06/21 08:15
10	7	Northern Gulf of Mexico	Parapterois heterura	blackfoot firefish	Timothy J. Lyons	55/55	12.5;12.5	4	Medium	4	Medium	09/08/17 11:27
11	7	Northern Gulf of Mexico	Platix orbicularis	orbicular batfish	David Reeves	55/55	12.5;12.5	17	High	17	High	16/06/21 07:02
12	7	Northern Gulf of Mexico	Pterois antennata	broadbarred firefish	Timothy J. Lyons	55/55	12.5;12.5	9	Medium	9	Medium	27/07/17 16:05
13	7	Northern Gulf of Mexico	Pterois cincta	Red Sea lionfish	Timothy J. Lyons	55/55	12.5;12.5	5	Medium	5	Medium	09/08/17 16:59
14	7	Northern Gulf of Mexico	Pterois lunulata	luna lionfish	Timothy J. Lyons	55/55	12.5;12.5	12	Medium	12	Medium	08/08/17 14:33
15	7	Northern Gulf of Mexico	Pterois mombasae	frillfin turkeyfish	Timothy J. Lyons	55/55	12.5;12.5	7	Medium	7	Medium	09/08/17 13:28
16	7	Northern Gulf of Mexico	Pterois radiata	radial firefish	Timothy J. Lyons	55/55	12.5;12.5	5	Medium	5	Medium	28/07/17 12:14
17	7	Northern Gulf of Mexico	Pterois russelli	plains turkeyfish	Timothy J. Lyons	55/55	12.5;12.5	19	High	19	High	08/08/17 13:14
18	7	Northern Gulf of Mexico	Pterois sphex	Hawaiian turkeyfish	Timothy J. Lyons	55/55	12.5;12.5	5	Medium	5	Medium	01/08/17 11:25
19	7	Northern Gulf of Mexico	Rhinopias eschmeyerii	Eschmeyer's scorpionfish	Mike Norberg, Alex F	55/55	12.5;12.5	16	High	18	High	12/02/21 08:47
20	7	Northern Gulf of Mexico	Rhinopias frondosa	weedy scorpionfish	Justin Procopio	55/55	12.5;12.5	29	High	37	High	22/06/21 19:28
21	7	Northern Gulf of Mexico	Scorpaena guttata	California scorpionfish	Justin Procopio	55/55	12.5;12.5	22	High	30	High	20/06/21 17:16
22	7	Northern Gulf of Mexico	Scorpaena mystes	Pacific spotted scorpionfish	Mike Norberg, Alex F	55/55	12.5;12.5	13	High	15	High	12/02/21 08:47
23	7	Northern Gulf of Mexico	Scorpaena scrofa	red scorpionfish	Mike Norberg, Alex F	55/55	12.5;12.5	20	High	22	High	12/02/21 08:43
24	7	Northern Gulf of Mexico	Scorpaenodes parvipinnis	lowfin scorpionfish	Mike Norberg, Alex F	55/55	12.5;12.5	9	Medium	13	High	12/02/21 08:49
25	7	Northern Gulf of Mexico	Scorpaenopsis macrochir	flasher scorpionfish	Mike Norberg, Alex F	55/55	12.5;12.5	14	High	16	High	12/02/21 08:48
26	7	Northern Gulf of Mexico	Scorpaenopsis neglecta	yellowfin scorpionfish	Mike Norberg, Alex F	55/55	12.5;12.5	19	High	21	High	12/02/21 08:50

Category: 7 - Fishes and Lamprays (marine) Assessment no. 3

Answered: 55 Unanswered: 0 Not applicable: 0

Risk screening context

Reason and benefits: Taxonomic relation to known invader

Taxonomy: Class: Actinopterygii Order: Scorpaeniformes Suborder: Scorpaenoidei Family: Scorpaenidae Subfamily

Native range: from South Africa and Mauritius east to the Tuamotu Archipelago in French Polynesia, and from the TI

Introduced range: N/A

URL: <http://www.fishbase.se/summary/Dendrochirus-biocellatus.html>

Assessment statistics

A. Biogeography/Historical

1. Domestication/Cultivation 1.0

2. Climate, distribution and introduction risk 0.0

3. Invasive elsewhere 0.0

B. Biology/Ecology

4. Undesirable (or persistence) traits 2.0

5. Resource exploitation 0.0

Commercial 4

Environmental 1

Species or population nuisance traits 2

Confidence

BRA+CCA 0.57

BRA 0.58

CCA 0.50

Report

Database statistics

Total: 138 Assessed: 138 Incomplete: 0 Outcomes: 138 Selected: 1

Sort: Category Ascending Descending

Risk screening: Open Q&A Help

Assessment: Wizard New Edit Delete Replicate

Database: Save As Save Close

This dialog represents the core component of the AS-ISK v2.3 GUI, where all assessment-related data manipulation is performed.

## Assessment List

This displays the entire list of assessments. Note that the maximum number of assessments in a database is currently limited to 10,000 (mainly, for reasons of Excel 'realistic' computing capabilities).

Double-clicking an assessment for which information for the required fields *Category*, *Taxon name*, *Common name*, *Assessor* and *Risk assessment area* has been provided (see *New/Edit*) will open the Q&A dialog. Conversely, double-clicking an assessment for which information for any of the required fields *Category*, *Taxon name*, *Common name*, *Assessor* and *Risk assessment area* has not (yet) been provided (as in the case of newly generated assessment(s) through the *Wizard* and *Replicate* options) will open the *New/Edit* dialog.

From the *Assessment List*, which allows multiple selection of both contiguous and non-contiguous items, the Assessor can perform the following operations:

- Single assessment selected (*Assessment (tab)*): *Edit/Delete/Replicate*; *Thresholds (tab)* – *Set/Re-set/Clear*; *Report (tab)* – *Output Separate*);
- Multiple assessments selected, either contiguously or non-contiguously (*Assessment (tab)*): *Edit/Batch Edit/Delete*; *Thresholds (tab)*: *Set/Re-set/(Re-)set/Clear*; *Report (tab)*: *Output Separate/Grouped*).

For each assessment, the following details are provided:

## *ID*

A unique, progressive number. Notably, unlike in a relational database, this is not a unique identifier but refers to the order of items (= assessments) from the top to the bottom of the list.

## *Cat*

The aquatic organism unique identifier for the corresponding *Category* (as provided in the *New/Edit* dialog):

1. Mammals
2. Birds
3. Reptiles
4. Amphibians
5. Fishes and Lampreys (freshwater)
6. Fishes and Lampreys (brackish)
7. Fishes and Lampreys (marine)
8. Tunicates
9. Lancelets
10. Invertebrates (freshwater)
11. Invertebrates (brackish)
12. Invertebrates (marine)
13. Animalia 'other' (freshwater)
14. Animalia 'other' (brackish)
15. Animalia 'other' (marine)
16. Plantae (freshwater)
17. Plantae (brackish)
18. Plantae (marine)
19. Protista (freshwater)
20. Protista (brackish)
21. Protista (marine)
22. Fungi (freshwater)
23. Fungi (brackish)
24. Fungi (marine)
25. Bacteria (freshwater)
26. Bacteria (brackish)
27. Bacteria (marine)

Note that the complete entry (i.e. *ID* plus *Category*) is provided in the *Category* section of this dialog.

### *Risk assessment area*

The Risk assessment area for which the assessment is being carried out (as provided in the *New/Edit* dialog).

### *Taxon name*

The scientific name of the taxon for which the assessment is being carried out (as provided in the *New/Edit* dialog).

### *Common name*

The common name of the taxon for which the assessment is being carried out (as provided in the *New/Edit* dialog).

### *Assessor*

The name of the assessor carrying out the assessment (as provided in the *New/Edit* dialog).

### *Answered*

The number of answered Qs out of the total number ( $n = 55$ ) of Qs making up the assessment.

### *Thresholds*

If specified, the Basic Risk Assessment (BRA) and BRA+CCA (Climate Change Assessment) thresholds set for the assessment are displayed, else a ‘-; -’ entry is displayed (see *Thresholds (tab)*).

### *BRA Score*

The BRA based on the 49 AS-ISK BRA Qs, with minimum and maximum possible values ranging from -20 to 68 (see *Thresholds (tab)*). Note that in case of an incomplete assessment (i.e. not all 55 Qs answered) this value is not provided.

### *BRA Outcome*

The BRA outcome (‘Low’, ‘Medium’, ‘High’) for the BRA score if thresholds have been provided. Note that in case of an incomplete assessment (i.e. not all 55 Qs answered) this value is not provided.

### *BRA+CCA Score*

The BRA+CCA score based on the 49 BRA Qs plus the six additional CCA Qs, with minimum and maximum possible values ranging from -32 to 80 (see *Thresholds (tab)*). Note that in case of an incomplete assessment (i.e. not all 55 Qs answered) this value is not provided.

### *BRA+CCA Outcome*

The BRA+CCA outcome (‘Low’, ‘Medium’, ‘High’) for the BRA+CCA score if thresholds have been provided. Note that in case of an incomplete assessment (i.e. not all 55 Qs answered) this value is not provided.

### *Date and Time*

The date and time of creation of the assessment. Notably, this entry does not update following the re-scoring phase when opening an existing database, unless no date and time were previously provided. Whereas, in case of an -ISK imported database, the current date and time are given.

## Category

Shows the *Category* of the taxon in the assessment. The corresponding field turns blank in case of multiple assessment selection involving taxa in different Categories.

## Assessment no.

Shows the ID for the selected assessment in the list. In case of incomplete information provided for the corresponding *Risk Screening Context*, the label turns red, else it displays in the default colour. Hovering the mouse pointer on the corresponding text will cause it to turn light blue and double-clicking will open the *New/Edit* dialog. The corresponding field turns blank in case of multiple assessment selection involving taxa in different Categories.

## Questions

This section provides a summary of the number of *Answered*, *Unanswered* and *Not applicable* questions in the selected assessment from the list. In case of an incomplete assessment (i.e. with one or more Qs unanswered), all three labels turn red. Hovering the mouse pointer on the text of any of these three labels will cause them to turn light blue and double-clicking any of them will open the *Q&A* dialog. All three labels turn blank in case either of multiple assessment selection or of a single assessment selected containing ellipsis '...' entries for either the *Risk assessment area*, *Taxon name*, *Common name* or *Assessor* fields (as generated through the *Wizard* or *Replicate* dialogs).

## Risk screening context

This displays the assessment-wise information about *Reason and socio-economic benefits*, *Taxonomy*, *Native range*, *Introduced range* and *URL*. Copying (but not editing) of text from all fields is possible. Hovering the mouse on the *URL* field turns the pointer into a 'hand' and clicking it takes to the indicated web page (provided the hyperlink is working). Hovering the mouse pointer on the text of any of these fields will cause it to turn light blue and double-clicking any of them will open the *New/Edit* dialog with the focus on the corresponding field. A text string reading 'Information not provided' displays in case of an empty field. All the above fields turn blank in case of multiple assessment selection.

## Assessment statistics

This section provides a 'snapshot' of the Statistics information that is given in full in the report (see *Report (tab)*) generated for the corresponding assessment. On the left-hand side of this section, the top panel displays the information for the *Score partition*, and the bottom panel the information for the *Sectors affected*. On the right-hand side of this section, the *Confidence* panel includes information about the confidence level for the BRA+CCA (composite score) and for the BRA and CCA scores separately. The *Report* button outputs the report for the corresponding assessment, hence like selecting the *Output Separate* option from the *Report (tab)* (of which this button represents a 'shortcut'). All panels and fields in this section turn blank and the *Report* button is disabled in case of selection of an incomplete assessment (i.e. with one or more Qs unanswered) or in case of multiple assessment selection.

## Database statistics

This section provides a summary of the *Total* number of assessments in the database, the number of fully *Assessed* taxa, *Incomplete* assessments (i.e. with less than 55 Qs answered), *Outcomes* (i.e. completed assessments for which thresholds have been specified), and *Selected* assessments from the list. In case of one or more *Incomplete* assessment(s), the corresponding label turns light red.

## Sort

This drop-down allows sorting of the *Assessment List*, in either *Ascending* or *Descending* order, based on all headings (except for the *ID*), and with sorting starting from the selected field and then progressing in order from *Cat* through to *Date and Time*, as applicable. If sorting by *Cat*, *Risk assessment area*, *Taxon name*, *Common name* or *Assessor*, then the *Batch Edit* option on the corresponding button in the *Assessment (tab)* sub-menu becomes available in case two or more assessments in the list have the same entry for the corresponding field.

### *Ascending*

Sorts the *Assessment List* items in ascending order. Note that sorting is also case-sensitive.

### *Descending*

Sorts the *Assessment List* items in descending order. Note that sorting is also case-sensitive.

## Risk screening

### *Open Q&A*

Clicking this button opens the *Q&A* dialog in which a new assessment is started or continued for the taxon selected from the *Assessment List*. This button is disabled in case of multiple assessment selection or of a single assessment selected containing ellipsis '...' entries for either the *Risk assessment area*, *Taxon name*, *Common name* or *Assessor* fields (as generated through the *Wizard* or *Replicate* dialogs).

### *Help*

Clicking this button opens the pdf Help file (AS-ISK\_v2\_3\_3\_Help\_MainAssessmentWorkspace.pdf) for the current dialog. Note that the AS-ISK v2.3 Help files must be in the same folder as the AS-ISK v2.3 program.

## Assessment (tab)

AS-ISK v2.3.3 - Main Assessment Workspace

ID	Cat	Risk assessment area	Taxon name	Common name	Assessor	Answered	Thresholds	BRA Score	BRA Outcome	BRA+CCA Score	BRA+CCA Outcome	Date and Time
1	7	Northern Gulf of Mexico	Conger verreauxi	southern conger eel	Mike Norberg, Alex F	55/55	12.5;12.5	13	High	13	High	11/02/21 15:01
2	7	Northern Gulf of Mexico	Dendrochirus barberi	Hawaiian lionfish	Timothy J. Lyons	55/55	12.5;12.5	6	Medium	6	Medium	19/07/17 13:43
3	7	Northern Gulf of Mexico	Dendrochirus biocellatus	twospot turkeyfish	Timothy J. Lyons	55/55	12.5;12.5	3	Medium	3	Medium	09/08/17 11:38
4	7	Northern Gulf of Mexico	Dendrochirus brachypterus	dwarf lionfish	Timothy J. Lyons	55/55	12.5;12.5	12	Medium	12	Medium	15/08/17 19:10
5	7	Northern Gulf of Mexico	Dendrochirus zebra	zebra turkeyfish	Timothy J. Lyons	55/55	12.5;12.5	10	Medium	10	Medium	09/08/17 13:16
6	7	Northern Gulf of Mexico	Fundulus heteroclitus heteroclitus	mummichog	Jessica Dutton	55/55	12.5;12.5	14	High	14	High	09/07/21 20:43
7	7	Northern Gulf of Mexico	Heniochus diphreutes	false moonfish	Justin Procopio	55/55	12.5;12.5	7	Medium	9	Medium	20/06/21 17:36
8	7	Northern Gulf of Mexico	Lythrypnus dalli	bluebanded goby	Mike Norberg, Alex F	55/55	12.5;12.5	4	Medium	4	Medium	11/02/21 15:00
9	7	Northern Gulf of Mexico	Muraenesox cinereus	dagger-tooth pike conger	Justin Procopio	55/55	12.5;12.5	15	High	23	High	21/06/21 08:15
10	7	Northern Gulf of Mexico	Paraproteocheilus heteroclitus	blackfoot firefish	Timothy J. Lyons	55/55	12.5;12.5	4	Medium	4	Medium	09/08/17 11:27
11	7	Northern Gulf of Mexico	Platax orbicularis	orbicular batfish	David Reeves	55/55	12.5;12.5	17	High	17	High	16/06/21 07:02
12	7	Northern Gulf of Mexico	Pterois antennata	broadbarred firefish	Timothy J. Lyons	55/55	12.5;12.5	9	Medium	9	Medium	27/07/17 16:05
13	7	Northern Gulf of Mexico	Pterois cincta	Red Sea lionfish	Timothy J. Lyons	55/55	12.5;12.5	5	Medium	5	Medium	09/08/17 16:59
14	7	Northern Gulf of Mexico	Pterois lunulata	luna lionfish	Timothy J. Lyons	55/55	12.5;12.5	12	Medium	12	Medium	08/08/17 14:33
15	7	Northern Gulf of Mexico	Pterois mombasae	frillfin turkeyfish	Timothy J. Lyons	55/55	12.5;12.5	7	Medium	7	Medium	09/08/17 13:28
16	7	Northern Gulf of Mexico	Pterois radiata	radial firefish	Timothy J. Lyons	55/55	12.5;12.5	5	Medium	5	Medium	28/07/17 12:14
17	7	Northern Gulf of Mexico	Pterois russelli	plumtail turkeyfish	Timothy J. Lyons	55/55	12.5;12.5	19	High	19	High	08/08/17 13:14
18	7	Northern Gulf of Mexico	Pterois sphex	Hawaiian turkeyfish	Timothy J. Lyons	55/55	12.5;12.5	5	Medium	5	Medium	01/08/17 11:25
19	7	Northern Gulf of Mexico	Rhinopias eschmeyerii	Eschmeyer's scorpionfish	Mike Norberg, Alex F	55/55	12.5;12.5	16	High	18	High	12/02/21 08:47
20	7	Northern Gulf of Mexico	Rhinopias frondosa	weedy scorpionfish	Justin Procopio	55/55	12.5;12.5	29	High	37	High	22/06/21 19:28
21	7	Northern Gulf of Mexico	Scorpaena guttata	California scorpionfish	Justin Procopio	55/55	12.5;12.5	22	High	30	High	20/06/21 17:16
22	7	Northern Gulf of Mexico	Scorpaena mystes	Pacific spotted scorpionfish	Mike Norberg, Alex F	55/55	12.5;12.5	13	High	15	High	12/02/21 08:47
23	7	Northern Gulf of Mexico	Scorpaena scrofa	red scorpionfish	Mike Norberg, Alex F	55/55	12.5;12.5	20	High	22	High	12/02/21 08:43
24	7	Northern Gulf of Mexico	Scorpaenodes parvipinnis	lowfin scorpionfish	Mike Norberg, Alex F	55/55	12.5;12.5	9	Medium	13	High	12/02/21 08:49
25	7	Northern Gulf of Mexico	Scorpaenopsis macrochir	flasher scorpionfish	Mike Norberg, Alex F	55/55	12.5;12.5	14	High	16	High	12/02/21 08:49
26	7	Northern Gulf of Mexico	Scorpaenopsis neglecta	yellowfin scorpionfish	Mike Norberg, Alex F	55/55	12.5;12.5	19	High	21	High	12/02/21 08:50

Category: 7 - Fishes and Lampreys (marine) Assessment no. 3

Questions: Answered 55 Unanswered 0 Not applicable 0

Risk screening context: Reason and benefits: Taxonomic relation to known invader

Taxonomy: Class: Actinopterygii Order: Scorpaeniformes Suborder: Scorpaenoidei Family: Scorpaenidae Subfamily

Native range: from South Africa and Mauritius east to the Tuamotu Archipelago in French Polynesia, and from the TI

Introduced range: N/A

URL: http://www.fishbase.se/summary/Dendrochirus-biocellatus.html

Assessment statistics: A. Biogeography/Historical 1.0 16/06/21 07:02 2. Climate, distribution and introduction risk 1.0 27/07/17 16:05 3. Invasive elsewhere 0.0 09/08/17 16:59 B. Biology/Ecology 2.0 12/02/21 08:47 4. Undesirable (or persistence) traits 2.0 12/02/21 08:49 5. Resource exploitation 0.0 12/02/21 08:49

Commercial 4 Environmental 1 Species or population nuisance traits 2 Report

Database statistics: Total 138 Assessed 138 Incomplete 0 Outcomes 138 Selected 1

Sort: Category Ascending Descending

Risk screening: Open Q&A Help Wizard New Edit Delete Replicate Database: Save As Save Close

## Wizard

Clicking this button opens the *Wizard* dialog, which allows to generate a 'template' for one or (usually) more new assessments at once.

## New

Clicking this button opens the *New/Edit* dialog in which details of the new assessment are input by the Assessor.

## Edit

Clicking this button opens the *New/Edit* dialog in which details of an existing assessment are edited by the Assessor.

## Batch Edit

This option becomes available in case of multiple assessment selection (i.e. two or more assessments selected from the *Assessment List*) and with the *Assessment List* ordered by *Cat*, *Risk assessment area*, *Taxon name*, *Common name* or *Assessor*. In such cases, the button text turns light blue and the *Sort* drop-down entry colour blue, indicating that editing is in 'batch mode'. Clicking this button opens the *New/Edit* dialog in *Batch Edit* mode, where details are provided by the Assessor for the corresponding field.

## Delete

Clicking this button deletes the selected assessment(s) from the list. A message request for confirmation is issued before proceeding. Note that changes to the database are not saved until the *Save* or *Save As* button is clicked, whose text turns red.



## Replicate

Clicking this button opens the *Replicate* dialog for replicating an existing assessment. This button is disabled in case of multiple assessment selection or of a single assessment selected containing ellipsis '...' entries for either the *Risk assessment area*, *Taxon name*, *Common name* or *Assessor* fields (as generated through the *Wizard* or *Replicate* dialogs).

## Thresholds (tab)

AS-ISK v2.3.3 - Main Assessment Workspace

ID	Cat	Risk assessment area	Taxon name	Common name	Assessor	Answered	Thresholds	BRA Score	BRA Outcome	BRA+CCA Score	BRA+CCA Outcome	Date and Time
1	7	Northern Gulf of Mexico	Conger verreauxi	southern conger eel	Mike Norberg, Alex F	55/55	12.5;12.5	13	High	13	High	11/02/21 15:01
2	7	Northern Gulf of Mexico	Dendrochirus barberi	Hawaiian lionfish	Timothy J. Lyons	55/55	12.5;12.5	6	Medium	6	Medium	18/07/17 13:43
3	7	Northern Gulf of Mexico	Dendrochirus biocellatus	twospot turkeyfish	Timothy J. Lyons	55/55	12.5;12.5	3	Medium	3	Medium	09/08/17 11:38
4	7	Northern Gulf of Mexico	Dendrochirus brachypterus	dwarf lionfish	Timothy J. Lyons	55/55	12.5;12.5	12	Medium	12	Medium	15/08/17 19:10
5	7	Northern Gulf of Mexico	Dendrochirus zebra	zebra turkeyfish	Timothy J. Lyons	55/55	12.5;12.5	10	Medium	10	Medium	09/08/17 13:16
6	7	Northern Gulf of Mexico	Fundulus heteroclitus heteroclitus	nummichog	Jessica Dutton	55/55	12.5;12.5	14	High	14	High	09/07/21 20:43
7	7	Northern Gulf of Mexico	Heniochus diphreutes	false moorish idol	Justin Procopio	55/55	12.5;12.5	7	Medium	9	Medium	20/06/21 17:36
8	7	Northern Gulf of Mexico	Lythrypnus dalli	bluebanded goby	Mike Norberg, Alex F	55/55	12.5;12.5	4	Medium	4	Medium	11/02/21 15:00
9	7	Northern Gulf of Mexico	Muraenesox cinereus	daggertooth pike conger	Justin Procopio	55/55	12.5;12.5	15	High	23	High	21/06/21 08:15
10	7	Northern Gulf of Mexico	Parapterois heterura	blackfoot firefish	Timothy J. Lyons	55/55	12.5;12.5	4	Medium	4	Medium	09/08/17 11:27
11	7	Northern Gulf of Mexico	Platax orbicularis	orbicular batfish	David Reeves	55/55	12.5;12.5	17	High	17	High	16/06/21 07:02
12	7	Northern Gulf of Mexico	Pterois antennata	broadbarred firefish	Timothy J. Lyons	55/55	12.5;12.5	9	Medium	9	Medium	27/07/17 16:05
13	7	Northern Gulf of Mexico	Pterois cincta	Red Sea lionfish	Timothy J. Lyons	55/55	12.5;12.5	5	Medium	5	Medium	09/08/17 16:59
14	7	Northern Gulf of Mexico	Pterois lunulata	luna lionfish	Timothy J. Lyons	55/55	12.5;12.5	12	Medium	12	Medium	08/08/17 14:33
15	7	Northern Gulf of Mexico	Pterois mombasae	frillfin turkeyfish	Timothy J. Lyons	55/55	12.5;12.5	7	Medium	7	Medium	09/08/17 13:28
16	7	Northern Gulf of Mexico	Pterois radiata	radial firefish	Timothy J. Lyons	55/55	12.5;12.5	5	Medium	5	Medium	28/07/17 12:14
17	7	Northern Gulf of Mexico	Pterois russelli	plains turkeyfish	Timothy J. Lyons	55/55	12.5;12.5	19	High	19	High	08/08/17 13:14
18	7	Northern Gulf of Mexico	Pterois sphex	Hawaiian turkeyfish	Timothy J. Lyons	55/55	12.5;12.5	5	Medium	5	Medium	01/08/17 11:25
19	7	Northern Gulf of Mexico	Rhinopias eschmeyerii	Eschmeyer's scorpionfish	Mike Norberg, Alex F	55/55	12.5;12.5	16	High	18	High	12/02/21 08:47
20	7	Northern Gulf of Mexico	Rhinopias frondosa	weedy scorpionfish	Justin Procopio	55/55	12.5;12.5	29	High	37	High	22/06/21 19:28
21	7	Northern Gulf of Mexico	Scorpaena guttata	California scorpionfish	Justin Procopio	55/55	12.5;12.5	22	High	30	High	20/06/21 17:16
22	7	Northern Gulf of Mexico	Scorpaena mystes	Pacific spotted scorpionfish	Mike Norberg, Alex F	55/55	12.5;12.5	13	High	15	High	12/02/21 08:47
23	7	Northern Gulf of Mexico	Scorpaena scrofa	red scorpionfish	Mike Norberg, Alex F	55/55	12.5;12.5	20	High	22	High	12/02/21 08:43
24	7	Northern Gulf of Mexico	Scorpaenoides parvipinnis	lowfin scorpionfish	Mike Norberg, Alex F	55/55	12.5;12.5	9	Medium	13	High	12/02/21 08:49
25	7	Northern Gulf of Mexico	Scorpaenopsis macrochir	flasher scorpionfish	Mike Norberg, Alex F	55/55	12.5;12.5	14	High	16	High	12/02/21 08:49
26	7	Northern Gulf of Mexico	Scorpaenopsis neglecta	yellowfin scorpionfish	Mike Norberg, Alex F	55/55	12.5;12.5	19	High	21	High	12/02/21 08:50

Category: 7 - Fishes and Lampreys (marine) Assessment no. 3

Answered: 55 Unanswered: 0 Not applicable: 0

Risk screening context

Reason and benefits: Taxonomic relation to known invader

Taxonomy: Class: Actinopterygii Order: Scorpaeniformes Suborder: Scorpaenoidei Family: Scorpaenidae Subfamily

Native range: from South Africa and Mauritius east to the Tuamotu Archipelago in French Polynesia, and from the TI

Introduced range: N/A

URL: http://www.fishbase.se/summary/Dendrochirus-biocellatus.html

Assessment statistics

A. Biogeography/Historical

1. Domestication/Cultivation 1.0

2. Climate, distribution and introduction risk 1.0

3. Invasive elsewhere 0.0

B. Biology/Ecology

4. Undesirable (or persistence) traits 2.0

5. Resource exploitation 0.0

Commercial 4

Environmental 1

Species or population nuisance traits 2

Confidence

BRA+CCA 0.57

BRA 0.58

CCA 0.50

Report

Database statistics

Total: 138 Assessed: 138 Incomplete: 0 Outcomes: 138 Selected: 1

Risk screening

Assessment: Thresholds

BRA: 12.5 BRA+CCA: 12.5

Re-set Clear

Database

Save As Save Close

## BRA and BRA+CCA

Thresholds are set from the corresponding BRA and BRA+CCA drop-down controls. The minimum and maximum values for the BRA threshold are 1 to 68 and for the BRA+CCA threshold are 1 to 80 (the value of 1 being 'default' to distinguish between low and medium risk taxa) in increments of 0.05.

Depending on whether a single assessment or multiple assessments are selected from the *Assessment List* and on whether thresholds have been previously defined or not, six possible scenarios for both the BRA and BRA+CCA drop-downs can occur, affecting their appearance:

1. *Single assessment selected/No thresholds defined*: Empty threshold value entries, light red;
2. *Single assessment selected/Thresholds defined*: Assessment thresholds, Colour scheme of choice;
3. *Multiple assessments selected/No thresholds defined*: Empty entries, light red;
4. *Multiple assessments selected/Same thresholds defined*: Assessments thresholds, Colour scheme of choice;

5. *Multiple assessments selected/Different thresholds defined*: Empty entries, Colour scheme of choice;
6. *Multiple assessments selected/Thresholds both defined and not defined*: Empty entries, light red.

### *Set/Re-set/(Re-)set*

Clicking this button assigns the selected BRA and BRA+CCA threshold values from the corresponding dropdowns to the selected assessment(s) in the *Assessment List*, and in case of a complete assessment (i.e. all 55 Qs answered) displays the corresponding *BRA Outcome* and *BRA+CCA Outcome*.

Depending on whether a single assessment or multiple assessments are selected from the list and on whether thresholds have been defined or not for the selected assessment(s) from the *Assessment List*, the button's caption reads:

- *Set* – Single assessment or multiple assessment(s) selected and thresholds not yet defined;
- *Re-set* – Single assessment or multiple assessments selected and thresholds previously defined;
- *(Re-)set* - Multiple assessments selected and thresholds both not yet defined and previously defined.

This button is disabled whenever no threshold values are provided in the BRA and BRA+CCA dropdowns. Note that changes to the database are not saved until the *Save* or *Save As* button, whose text turns red, is clicked.

### *Clear*

Clicking this button removes any threshold values from the selected assessment(s) in the list. A message request for confirmation is issued before proceeding. In case of a complete assessment (i.e. all 55 Qs answered), the corresponding *BRA Outcome* and *BRA+CCA Outcome* are also cleared. This button is disabled whenever no threshold values are provided in the BRA and BRA+CCA dropdowns. Note that changes to the database are not saved until the *Save* or *Save As* button, whose text turns red, is clicked.

## Report (tab)

AS-ISK v2.3.3 - Main Assessment Workspace

ID	Cat	Risk assessment area	Taxon name	Common name	Assessor	Answered	Thresholds	BRA Score	BRA Outcome	BRA+CCA Score	BRA+CCA Outcome	Date and Time
1	7	Northern Gulf of Mexico	Conger verreauxi	southern conger eel	Mike Norberg, Alex F	55/55	12.5;12.5	13	High	13	High	11/02/21 15:01
2	7	Northern Gulf of Mexico	Dendrochirus barberi	Hawaiian lionfish	Timothy J. Lyons	55/55	12.5;12.5	6	Medium	6	Medium	19/07/17 13:43
3	7	Northern Gulf of Mexico	Dendrochirus biocellatus	twospot turkeyfish	Timothy J. Lyons	55/55	12.5;12.5	3	Medium	3	Medium	09/08/17 11:38
4	7	Northern Gulf of Mexico	Dendrochirus brachypterus	dwarf lionfish	Timothy J. Lyons	55/55	12.5;12.5	12	Medium	12	Medium	15/08/17 19:10
5	7	Northern Gulf of Mexico	Dendrochirus zebra	zebra turkeyfish	Timothy J. Lyons	55/55	12.5;12.5	10	Medium	10	Medium	09/08/17 13:16
6	7	Northern Gulf of Mexico	Fundulus heteroclitus heteroclitus	mummichog	Jessica Dutton	55/55	12.5;12.5	14	High	14	High	09/07/21 20:43
7	7	Northern Gulf of Mexico	Heniochus diphreutes	false moonfish	Justin Procopio	55/55	12.5;12.5	7	Medium	9	Medium	20/06/21 17:36
8	7	Northern Gulf of Mexico	Lythrypnus dalli	bluebanded goby	Mike Norberg, Alex F	55/55	12.5;12.5	4	Medium	4	Medium	11/02/21 15:00
9	7	Northern Gulf of Mexico	Muraenesox cinereus	dagger-tooth pike conger	Justin Procopio	55/55	12.5;12.5	15	High	23	High	21/06/21 08:15
10	7	Northern Gulf of Mexico	Paraproteocheilus heterura	blackfoot firefish	Timothy J. Lyons	55/55	12.5;12.5	4	Medium	4	Medium	09/08/17 11:27
11	7	Northern Gulf of Mexico	Platax orbicularis	orbicular batfish	David Reeves	55/55	12.5;12.5	17	High	17	High	16/06/21 07:02
12	7	Northern Gulf of Mexico	Pterois antennata	broadbarred firefish	Timothy J. Lyons	55/55	12.5;12.5	9	Medium	9	Medium	27/07/17 16:05
13	7	Northern Gulf of Mexico	Pterois cincta	Red Sea lionfish	Timothy J. Lyons	55/55	12.5;12.5	5	Medium	5	Medium	09/08/17 16:59
14	7	Northern Gulf of Mexico	Pterois lunulata	luna lionfish	Timothy J. Lyons	55/55	12.5;12.5	12	Medium	12	Medium	08/08/17 14:33
15	7	Northern Gulf of Mexico	Pterois mombasae	frillfin turkeyfish	Timothy J. Lyons	55/55	12.5;12.5	7	Medium	7	Medium	09/08/17 13:28
16	7	Northern Gulf of Mexico	Pterois radiata	radial firefish	Timothy J. Lyons	55/55	12.5;12.5	5	Medium	5	Medium	28/07/17 12:14
17	7	Northern Gulf of Mexico	Pterois russelli	plantain turkeyfish	Timothy J. Lyons	55/55	12.5;12.5	19	High	19	High	08/08/17 13:14
18	7	Northern Gulf of Mexico	Pterois sphex	Hawaiian turkeyfish	Timothy J. Lyons	55/55	12.5;12.5	5	Medium	5	Medium	01/08/17 11:25
19	7	Northern Gulf of Mexico	Rhinopias eschmeyerii	Eschmeyer's scorpionfish	Mike Norberg, Alex F	55/55	12.5;12.5	16	High	18	High	12/02/21 08:47
20	7	Northern Gulf of Mexico	Rhinopias frondosa	weedy scorpionfish	Justin Procopio	55/55	12.5;12.5	29	High	37	High	22/06/21 19:28
21	7	Northern Gulf of Mexico	Scorpaena guttata	California scorpionfish	Justin Procopio	55/55	12.5;12.5	22	High	30	High	20/06/21 17:16
22	7	Northern Gulf of Mexico	Scorpaena mystes	Pacific spotted scorpionfish	Mike Norberg, Alex F	55/55	12.5;12.5	13	High	15	High	12/02/21 08:47
23	7	Northern Gulf of Mexico	Scorpaena scrofa	red scorpionfish	Mike Norberg, Alex F	55/55	12.5;12.5	20	High	22	High	12/02/21 08:43
24	7	Northern Gulf of Mexico	Scorpaenodes parvipinnis	lowfin scorpionfish	Mike Norberg, Alex F	55/55	12.5;12.5	9	Medium	13	High	12/02/21 08:49
25	7	Northern Gulf of Mexico	Scorpaenopsis macrochir	flasher scorpionfish	Mike Norberg, Alex F	55/55	12.5;12.5	14	High	16	High	12/02/21 08:49
26	7	Northern Gulf of Mexico	Scorpaenopsis neglecta	yellowfin scorpionfish	Mike Norberg, Alex F	55/55	12.5;12.5	19	High	21	High	12/02/21 08:50

Category: 7 - Fishes and Lamprays (marine) Assessment no.: 3

Questions: Answered: 55 Unanswered: 0 Not applicable: 0

Risk screening context: Reason and benefits: Taxonomic relation to known invader

Taxonomy: Class: Actinopterygii Order: Scorpaeniformes Suborder: Scorpaenoidei Family: Scorpaenidae Subfamily

Native range: from South Africa and Mauritius east to the Tuamotu Archipelago in French Polynesia, and from the TI

Introduced range: N/A

URL: http://www.fishbase.se/summary/Dendrochirus-biocellatus.html

Assessment statistics: A. Biogeography/Historical 1.0 0.0 1.0 0.0 2.0 0.0 2.0 0.0 B. Biology/Ecology 2.0 2.0 2.0 0.0 C. Undesirable (or persistence) traits 4 1 2

Confidence: BRA+CCA: 0.57 BRA: 0.58 CCA: 0.50

Database statistics: Total: 138 Assessed: 138 Incomplete: 0 Outcomes: 138 Selected: 1

Risk screening: Open Q&A Help

Assessment: Thresholds: **Report** Utilities: Excel Workbook (\*.xlsx) Database: Save As Save Close

## Output

Clicking this button outputs the report(s) for the selected assessment(s) in the *Assessment List*. The status bar (located at the bottom left of the Excel window) displays progress with report generation and outputting. This button (and the corresponding *Separate* and *Grouped* options) is disabled in case one or more incomplete assessments are selected from the *Assessment List*.

## Separate

This is the only option available in case of selection of a single assessment from the *Assessment List*; whereas in case of multiple assessment selection, this option (if chosen) outputs a separate report spreadsheet for each selected assessment. A confirmation message that the selected report(s) has/have been generated is issued at the end of the process.

The file for each report spreadsheet (Microsoft Excel Worksheet format \*.xlsx) is named by default: "AS-ISK v2 Report - [Risk assessment area] - [Category] - [Taxon name] - [Assessor]". Also, the spreadsheet tab takes the name of the taxon for which the report has been generated (but limited to 31 characters in total including spaces due to the 'hard-coded' string length limits in Excel).

## Grouped

This option is chosen by default in case two or more assessments are selected from the *Assessment List*. A confirmation message that the grouped report has been generated is issued at the end of the process.

The grouped report consists of a workbook (Microsoft Excel Worksheet format \*.xlsx) named by default: "AS-ISK v2 Report - # Assessments" (where # is the number of assessments in the report).

The tab of each spreadsheet in the grouped report is named progressively from Assessment 1 to Assessment  $n$ , where  $n$  is the total number of assessments.

### (Report file type drop-down)

This drop-down allows to output the report as an Excel Workbook (\*.xlsx) (default option), a PDF document (\*.pdf), or as a MHTML (Web page archive file) document (\*.mhtml).

## Utilities (tab)

AS-ISK v2.3.3 - Main Assessment Workspace

ID	Cat	Risk assessment area	Taxon name	Common name	Assessor	Answered	Thresholds	BRA Score	BRA Outcome	BRA+CCA Score	BRA+CCA Outcome	Date and Time
1	7	Northern Gulf of Mexico	Conger verreauxi	southern conger eel	Mike Norberg, Alex F	55/55	12.5;12.5	13	High	13	High	11/02/21 15:01
2	7	Northern Gulf of Mexico	Dendrochirus barberi	Hawaiian lionfish	Timothy J. Lyons	55/55	12.5;12.5	6	Medium	6	Medium	18/07/17 13:43
3	7	Northern Gulf of Mexico	Dendrochirus biocellatus	twospot turkeyfish	Timothy J. Lyons	55/55	12.5;12.5	3	Medium	3	Medium	09/08/17 11:38
4	7	Northern Gulf of Mexico	Dendrochirus brachypterus	dwarf lionfish	Timothy J. Lyons	55/55	12.5;12.5	12	Medium	12	Medium	15/08/17 19:10
5	7	Northern Gulf of Mexico	Dendrochirus zebra	zebra turkeyfish	Timothy J. Lyons	55/55	12.5;12.5	10	Medium	10	Medium	09/08/17 13:16
6	7	Northern Gulf of Mexico	Fundulus heteroclitus heteroclitus	nummichog	Jessica Dutton	55/55	12.5;12.5	14	High	14	High	09/07/21 20:43
7	7	Northern Gulf of Mexico	Heniochus diphreutes	false moonfish	Justin Procopio	55/55	12.5;12.5	7	Medium	9	Medium	20/06/21 17:36
8	7	Northern Gulf of Mexico	Lythrypnus dalli	bluebanded goby	Mike Norberg, Alex F	55/55	12.5;12.5	4	Medium	4	Medium	11/02/21 15:00
9	7	Northern Gulf of Mexico	Muraenesox cinereus	daggertooth pike conger	Justin Procopio	55/55	12.5;12.5	15	High	23	High	21/06/21 08:15
10	7	Northern Gulf of Mexico	Paraprotos heterura	blackfoot freifish	Timothy J. Lyons	55/55	12.5;12.5	4	Medium	4	Medium	09/08/17 11:27
11	7	Northern Gulf of Mexico	Platax orbicularis	orbicular batfish	David Reeves	55/55	12.5;12.5	17	High	17	High	16/06/21 07:02
12	7	Northern Gulf of Mexico	Pterois antennata	broadbarred firefish	Timothy J. Lyons	55/55	12.5;12.5	9	Medium	9	Medium	27/07/17 16:05
13	7	Northern Gulf of Mexico	Pterois cineta	Red Sea lionfish	Timothy J. Lyons	55/55	12.5;12.5	5	Medium	5	Medium	09/08/17 16:59
14	7	Northern Gulf of Mexico	Pterois lunulata	luna lionfish	Timothy J. Lyons	55/55	12.5;12.5	12	Medium	12	Medium	08/08/17 14:33
15	7	Northern Gulf of Mexico	Pterois mombasae	frillfin turkeyfish	Timothy J. Lyons	55/55	12.5;12.5	7	Medium	7	Medium	09/08/17 13:28
16	7	Northern Gulf of Mexico	Pterois radiata	radial firefish	Timothy J. Lyons	55/55	12.5;12.5	5	Medium	5	Medium	28/07/17 12:14
17	7	Northern Gulf of Mexico	Pterois russelli	plains turkeyfish	Timothy J. Lyons	55/55	12.5;12.5	19	High	19	High	08/08/17 13:14
18	7	Northern Gulf of Mexico	Pterois sphex	Hawaiian turkeyfish	Timothy J. Lyons	55/55	12.5;12.5	5	Medium	5	Medium	01/08/17 11:25
19	7	Northern Gulf of Mexico	Rhinopias eschmeyerii	Eschmeyer's scorpionfish	Mike Norberg, Alex F	55/55	12.5;12.5	16	High	18	High	12/02/21 08:47
20	7	Northern Gulf of Mexico	Rhinopias frondosa	weedy scorpionfish	Justin Procopio	55/55	12.5;12.5	29	High	37	High	22/06/21 19:28
21	7	Northern Gulf of Mexico	Scorpaena guttata	California scorpionfish	Justin Procopio	55/55	12.5;12.5	22	High	30	High	20/06/21 17:16
22	7	Northern Gulf of Mexico	Scorpaena mystes	Pacific spotted scorpionfish	Mike Norberg, Alex F	55/55	12.5;12.5	13	High	15	High	12/02/21 08:47
23	7	Northern Gulf of Mexico	Scorpaena scrofa	red scorpionfish	Mike Norberg, Alex F	55/55	12.5;12.5	20	High	22	High	12/02/21 08:43
24	7	Northern Gulf of Mexico	Scorpaenodes parvipinnis	lowfin scorpionfish	Mike Norberg, Alex F	55/55	12.5;12.5	9	Medium	13	High	12/02/21 08:49
25	7	Northern Gulf of Mexico	Scorpaenopsis macrochir	flasher scorpionfish	Mike Norberg, Alex F	55/55	12.5;12.5	14	High	16	High	12/02/21 08:49
26	7	Northern Gulf of Mexico	Scorpaenopsis neglecta	yellowfin scorpionfish	Mike Norberg, Alex F	55/55	12.5;12.5	19	High	21	High	12/02/21 08:50

Category: 7 - Fishes and Lampreys (marine) Assessment no.: 3

Answered: 55 Unanswered: 0 Not applicable: 0

Risk screening context

Reason and benefits: Taxonomic relation to known invader

Taxonomy: Class: Actinopterygii Order: Scorpaeniformes Suborder: Scorpaenoidei Family: Scorpaenidae Subfamily

Native range: from South Africa and Mauritius east to the Tuamotu Archipelago in French Polynesia, and from the TI

Introduced range: N/A

URL: http://www.fishbase.se/summary/Dendrochirus-biocellatus.html

Assessment statistics

A. Biogeography/Historical

1. Domestication/Cultivation 1.0

2. Climate, distribution and introduction risk 1.0

3. Invasive elsewhere 0.0

B. Biology/Ecology

4. Undesirable (or persistence) traits 2.0

5. Resource exploitation 0.0

Commercial 4

Environmental 1

Species or population nuisance traits 2

Confidence

BRA+CCA 0.57

BRA 0.58

CCA 0.50

Report

Database statistics

Total: 138 Assessed: 138 Incomplete: 0 Outcomes: 138 Selected: 1

Risk screening

Assessment Thresholds Report Utilities

Open Q&A Help Re-score User Guide Colour scheme: Light blue

Sort: Category Ascending Descending

Save As Save Close

### Re-score

Clicking this button re-scores all assessments in the *Assessment List*. This feature is not generally required during a session, as AS-ISK v2.3 automatically re-scores all assessments upon opening either an existing AS-ISK v1 or v2 database (see *Start – Database (tab) – Existing*) or an -ISK database (see *Start – -ISK (tab)*). A request for confirmation to proceed is made before starting the process. Note that changes to the database are not saved until the *Save* or *Save As* button is clicked, whose text turns red.

### User Guide

Clicking this button opens the pdf Help file (AS-ISK\_v2\_3\_3\_Help\_UserGuide.pdf) for the current dialog. Note that the AS-ISK v2.3 Help files must be in the same folder as the AS-ISK v2.3 program.

### Colour scheme

The AS-ISK GUI is available in ten colours: four light-shade colours, including 'blue' (default), 'green', 'brown' and 'grey'; one 'neutral' colour; four dark-shade colours, including 'blue', 'green', 'brown' and 'grey'; and 'black'.

The colour scheme of choice applies to all ‘active’ (i.e. editable fields) and ‘semi-active’ (i.e. non-editable fields, labels, drop-downs) controls making up the AS-ISK GUI.

Because active controls in the AS-ISK also behave as ‘smart’ controls (see *Main Assessment Workspace*, *Wizard*, *New/Edit*, *Replicate* and *Q&A* dialogs) by changing aspect/behaviour depending on the Assessor’s interaction with the GUI and the assessment database features, the ‘light yellow’ and ‘light red’ colours are reserved for the GUI only.

The *Colour scheme* of choice can be changed by the Assessor at any time during a session.

## Database

### Save As

Clicking this button saves the *Assessment List* into an AS-ISK v2 database. A new spreadsheet is created (pending confirmation) from the corresponding Windows dialog (default name: “AS-ISK v2 database”). This applies to databases from either AS-ISK v1, AS-ISK v2 or -ISK (imported). The text for this button turns red upon opening a new database (see *Start – Database (tab) – New*), deleting one or more assessments (see *Assessment (tab) – Delete*), and setting thresholds (see *Thresholds (tab) – Set/Re-set/(Re-)set*) and clearing thresholds (see *Thresholds (tab) – Clear*).

### Save

Clicking this button saves the *Assessment List*. Two scenarios are possible:

1. *Existing AS-ISK v2 database spreadsheet* – The spreadsheet is saved directly and overwritten with any new changes.
2. *Existing AS-ISK v1 database spreadsheet, New database spreadsheet, or -ISK (imported) database spreadsheet* – A new spreadsheet (Microsoft Excel Worksheet format \*.xlsx) is created pending confirmation from the corresponding Windows dialog (default name: “AS-ISK v2 database”).

The text for this button turns red upon opening a new database (see *Start – Database (tab) – New*), deleting one or more assessments (see *Assessment (tab) – Delete*), and setting thresholds (see *Thresholds (tab) – Set/Re-set/(Re-)set*) and clearing thresholds (see *Thresholds (tab) – Clear*).

### Close

Clicking this button closes the current dialog. If changes have been made to the *Assessment List*, then the Assessor is asked whether he/she wants to *Close* the database without saving or *Save* it before closing.

## WIZARD

AS-ISK v2.3.3 - Wizard

Risk screening details

Category: Please select

Risk assessment area:

Assessor:

Number of replicates: 1

Help Cancel Save

This dialog allows the Assessor to generate the basic info (= template) for one or (usually) more assessments as part of the risk screening of several taxa for the Risk assessment area under study. This option is especially useful when starting an assessment 'anew', i.e. by creating a *New* database from the *Start – Database (tab)*. However, this dialog can be opened at any time in presence of an *Assessment List* from the *Main Assessment Workspace* populated with existing assessments. After generating the assessment template(s), a message is issued informing the Assessor that the operation has been completed. The assessment template(s) in the *Assessment List* will include the information provided for the *Category*, *Risk assessment area* and *Assessor*, whereas the entries for the entries for *Taxon name* and *Common name* will include an ellipsis '...' to be replaced with the appropriate information through the *New/Edit* dialog.

### Risk screening details

#### Category

The aquatic organism *Category* for which the assessment is being carried out: Mammals, Birds, Reptiles, Amphibians, Fishes and Lampreys (freshwater), Fishes and Lampreys (brackish), Fishes and Lampreys (marine), Tunicates, Lancelets, Invertebrates (freshwater), Invertebrates (brackish), Invertebrates (marine), Animalia 'other' (freshwater), Animalia 'other' (brackish), Animalia 'other' (marine), Plantae (freshwater), Plantae (brackish), Plantae (marine), Protista (freshwater), Protista (brackish), Protista (marine), Fungi (freshwater), Fungi (brackish), Fungi (marine), Bacteria (freshwater), Bacteria (brackish), Bacteria (marine).

#### Risk assessment area

The Risk assessment area for which the assessment is being carried out. A limit of 40 characters (including spaces) applies. Text cannot be pasted into this field from the clipboard and neither the ellipsis '...' nor the following characters are allowed: \/:\*?"<>| (checking of these requirements is handled automatically by a notification message issued to the Assessor whilst in edit mode).



## Assessor

The name of the assessor carrying out the assessment. A limit of 40 characters (including spaces) applies. No pasting from the clipboard and neither the ellipsis '...' nor the following characters are allowed: \/:\*?"<>| (checking of these requirements is handled automatically by a notification message issued to the Assessor whilst in edit mode).

## Number of replicates

This control allows the Assessor to select the number of replicated assessment templates. The maximum number is 10,000, which is the maximum number of assessments that an AS-ISK v2 database spreadsheet can include (see *Assessment List*). The number of possible replicate templates adjusts automatically depending upon the number of existing assessments (if any) in the *Assessment List*.

## Help

Clicking this button opens the pdf Help file (AS-ISK\_v2\_3\_3\_Help\_Wizard.pdf) for the current dialog. Note that the AS-ISK v2.3 Help files must be in the same folder as the AS-ISK v2.3 program.

## Cancel

Clicking this button closes the current dialog. If any changes have been made, then the Assessor is asked whether he/she wants to abandon them.

## Save

Clicking this button saves the changes to the current assessment and database spreadsheet, and then closes the dialog. Active only if any changes have been made. Note that in case of an empty spreadsheet, the Save as dialog pops up for creating a new spreadsheet (see *Main Assessment Workspace – Database – Save As*).



## NEW/EDIT

AS-ISK v2.3.3 - Edit

**Taxon and Assessor details**

Category\* Fishes and Lampreys (marine) ▼ \*Required fields

Taxon name\* Dendrochirus biocellatus

Common name\* twospot turkeyfish

Assessor\* Timothy J. Lyons

**Risk screening context**

**Reason and socio-economic benefits**

Taxonomic relation to known invader

**Risk assessment area\***

Northern Gulf of Mexico

**Taxonomy**

Class: Actinopterygii Order: Scorpaeniformes Suborder: Scorpanoidei Family: Scorpaenidae Subfamily: Pteroinae Genus: Dendrochirus Dendrochirus biocellatus (Fowler 1938)

**Native range**

from South Africa and Mauritius east to the Tuamotu Archipelago in French Polynesia, and from the Timor Sea in Australia north to the Ryuku Islands in Japan

**Introduced range**

N/A

**URL**

http://www.fishbase.se/summary/Dendrochirus-biocellatus.html

Help Cancel Save

In this dialog, the Assessor provides all necessary details for the assessment. There are ten fields in total and their colour is 'context sensitive':

- *Light red* – Field empty;
- *Light yellow* – Field being edited;
- *Colour scheme* – Information provided.

Fields are grouped into two main sections: *Taxon and Assessor Details* and *Risk Screening Context*.

## Taxon and Assessor Details

### Category

Required field. It indicates the aquatic organism *Category* for which the assessment is being carried out: Mammals, Birds, Reptiles, Amphibians, Fishes and Lampreys (freshwater), Fishes and Lampreys (brackish), Fishes and Lampreys (marine), Tunicates, Lancelets, Invertebrates (freshwater), Invertebrates (brackish), Invertebrates (marine), Animalia 'other' (freshwater), Animalia 'other' (brackish), Animalia 'other' (marine), Plantae (freshwater), Plantae (brackish), Plantae (marine), Protista (freshwater), Protista (brackish), Protista (marine), Fungi (freshwater), Fungi (brackish), Fungi (marine), Bacteria (freshwater), Bacteria (brackish), Bacteria (marine).

### Taxon name

Required field. It provides the scientific name of the taxon for which the assessment is being carried out. A limit of 40 characters (including spaces) applies. No pasting from the clipboard and neither the ellipsis '...' nor the characters \/:\*?"<>| are allowed (checking of these requirements is handled automatically by a notification message issued to the Assessor whilst in edit mode).

### Common name

Required field. It provides the common name of the taxon for which the assessment is being carried out. A limit of 40 characters (including spaces) applies. No pasting from the clipboard and neither the ellipsis '...' nor the characters \/:\*?"<>| are allowed (checking of these requirements is handled automatically by a notification message issued to the Assessor whilst in edit mode).

### Assessor

Required field. It provides the name of the assessor carrying out the assessment. A limit of 40 characters (including spaces) applies. No pasting from the clipboard and neither the ellipsis '...' nor the characters \/:\*?"<>| are allowed (checking of these requirements is handled automatically by a notification message issued to the Assessor whilst in edit mode).

## Risk screening context

### Reason and socio-economic benefits

Optional (though recommended) field. It provides the reason and socio-economic benefits for carrying out the assessment. Pasting (ctrl + V or by drag-and-drop) from the clipboard is allowed, although a limit of 10,000 characters (including spaces) applies.

### Risk assessment area

Required field. It provides the name of the RA area for which the assessment is being carried out. A limit of 40 characters (including spaces) applies. No pasting from the clipboard and neither the ellipsis '...' nor the characters \/:\*?"<>| are allowed (checking of these requirements is handled automatically by a notification message issued to the Assessor whilst in edit mode).

### Taxonomy

Optional (though recommended) field. It provides a description of the taxonomy of the organism for which the assessment is being carried out. Pasting (ctrl + V or by drag-and-drop) from the clipboard is allowed, although a limit of 10,000 characters (including spaces) applies.

### *Native range*

Optional (though recommended) field. It provides a description of the native range of the taxon for which the assessment is being carried out. Pasting (ctrl + V or by drag-and-drop) from the clipboard is allowed, although a limit of 10,000 characters (including spaces) applies.

### *Introduced range*

Optional (though recommended) field. It provides a description of the introduced range of the taxon for which the assessment is being carried out. Pasting (ctrl + V or by drag-and-drop) from the clipboard is allowed, although a limit of 10,000 characters (including spaces) applies.

### *URL*

Optional field. It provides the web address for the page where external information resources can be retrieved. If the Assessor omits the prefix from the URL, this is automatically added by AS-ISK v2.3 after committing the changes. Pasting (ctrl + V or by drag-and-drop) from the clipboard is allowed, although a limit of 10,000 characters (including spaces) applies.

## **Help**

Clicking this button opens the pdf Help file (AS-ISK\_v2\_3\_3\_Help\_NewEdit.pdf) for the current dialog. Note that the AS-ISK v2.3 Help files must be in the same folder as the AS-ISK v2.3 program.

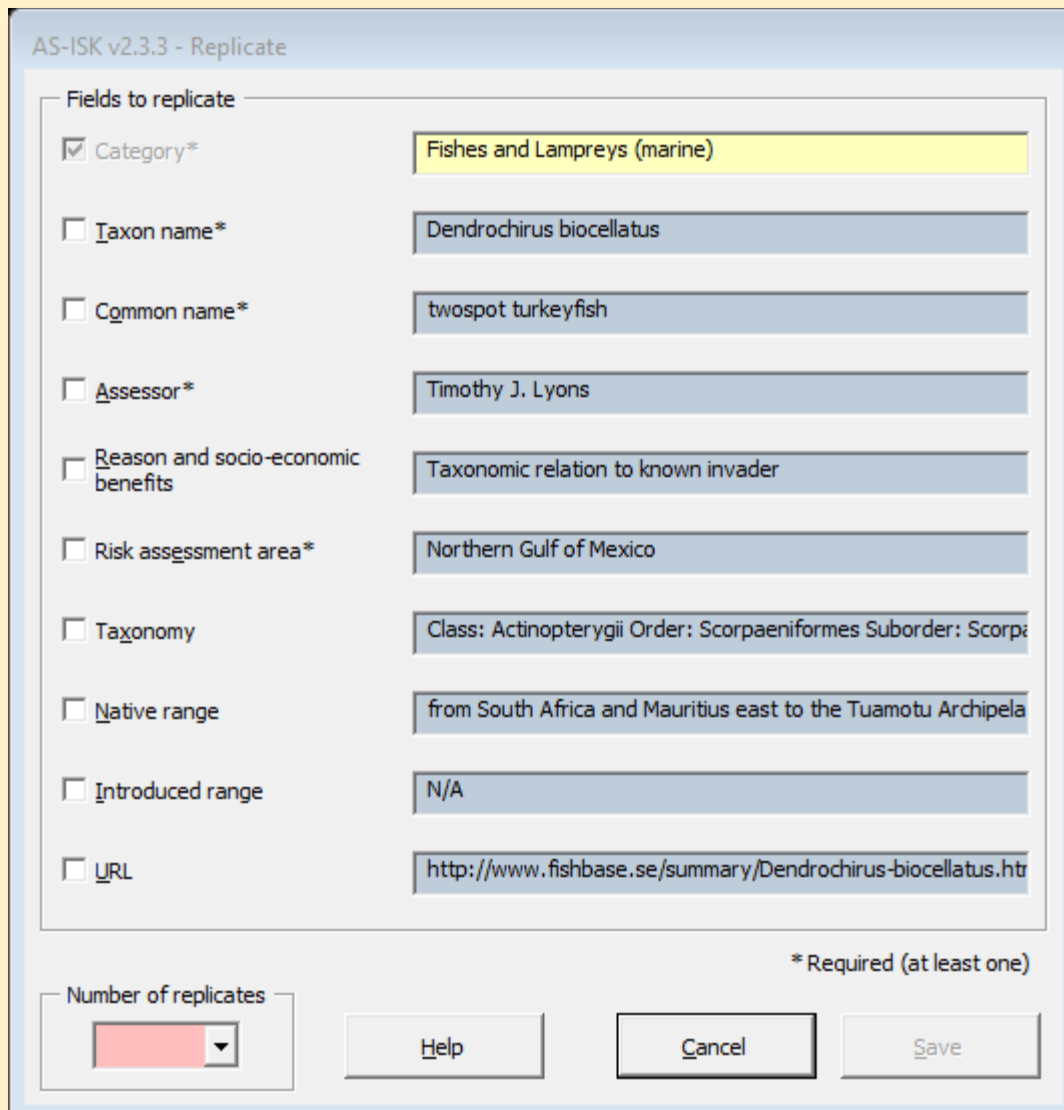
## **Cancel**

Clicking this button closes the current dialog. If any changes have been made, then the Assessor is asked whether he/she wants to abandon them.

## **Save**

Clicking this button saves the changes to the current assessment and database spreadsheet, and then closes the dialog. Active only if any changes have been made.

## REPLICATE



AS-ISK v2.3.3 - Replicate

Fields to replicate

<input checked="" type="checkbox"/> Category*	Fishes and Lampreys (marine)
<input type="checkbox"/> Taxon name*	Dendrochirus biocellatus
<input type="checkbox"/> Common name*	twospot turkeyfish
<input type="checkbox"/> Assessor*	Timothy J. Lyons
<input type="checkbox"/> Reason and socio-economic benefits	Taxonomic relation to known invader
<input type="checkbox"/> Risk assessment area*	Northern Gulf of Mexico
<input type="checkbox"/> Taxonomy	Class: Actinopterygii Order: Scorpaeniformes Suborder: Scorpaeniformes
<input type="checkbox"/> Native range	from South Africa and Mauritius east to the Tuamotu Archipelago
<input type="checkbox"/> Introduced range	N/A
<input type="checkbox"/> URL	<a href="http://www.fishbase.se/summary/Dendrochirus-biocellatus.htm">http://www.fishbase.se/summary/Dendrochirus-biocellatus.htm</a>

\* Required (at least one)

Number of replicates:

Help Cancel Save

This dialog allows the Assessor to replicate an assessment selected from the *Assessment List* in the *Main Assessment Workspace*. This option is useful when e.g. initiating one or more assessments for multiple taxa relative to a certain Risk assessment area and/or carried out by the same Assessor.

### Fields to replicate

These are nine fields in total whose details can be replicated: *Taxon name*, *Common name*, *Assessor*, *Reason and socio-economic benefits*, *Risk assessment area*, *Taxonomy*, *Native range*, *Introduced range* and *URL*. At least one field marked by an asterisk (\*) must be included for replication of the selected assessment from the *Assessment List* to be possible. Notably, the *Category* field is always included in the replicated assessment. In case of selection of all required fields (i.e. *Taxon name*, *Common name*, *Assessor* and *Risk assessment area*), only one replicate assessment is allowed to avoid duplication of entries. The entry for any of the required fields not

included in the replicated assessment will include the ellipsis "...". If a field is selected (checked), the corresponding label is highlighted in light yellow.

## Number of replicates

This control allows the Assessor to select the number of replicates for the selected assessment from the *Assessment List*. The maximum number of possible replicates is 9999 (i.e. given the maximum number of 10,000 assessments that an AS-ISK v2 database spreadsheet can include: see *Assessment List*). The number of possible replicates adjusts automatically depending upon the number of existing assessments. This control displays in light red when no replicates are indicated, and in light yellow otherwise. In case of selection of all required fields (i.e. *Taxon name*, *Common name*, *Assessor* and *Risk assessment area*), the number of replicates defaults to 1 (if any another value was previously chosen).

## Help

Clicking this button opens the pdf Help file (AS-ISK\_v2\_3\_3\_Help\_Replicate.pdf) for the current dialog. Note that the AS-ISK v2.3 Help files must be in the same folder as the AS-ISK v2.3 program.

## Cancel

Clicking this button closes the current dialog without performing any replication.

## Save

Clicking this button generates the replicates according to the Assessor's selection, saves the changes to the current assessment and database spreadsheet, and then closes the dialog. An information message is issued upon completion. Active only if at least one of the *Fields to replicate* has been selected and the *Number of replicates* has been indicated.

## Q&A

AS-ISK v2.3.3 - Dendrochirus biocellatus - Timothy J. Lyons - A. Biogeography/Historical: 1. Domestication/Cultivation - 1.01

Basic Risk Assessment (BRA) - Question 1 of 55

Has the taxon been the subject of domestication (or cultivation) for at least 20 generations?

Question (Q) guidance

The taxon must have been grown deliberately and subjected to substantial human selection for at least 20 generations, or it must be known to be easily reared in captivity (e.g. fish farms, aquaria or garden ponds, loch or fjord enclosures). This may be in the organism's native or introduced ranges.

Response:

Confidence:

-ISK Question compatibility:

Help

Justification (references and/or other information)

No reports of this species spawning in captivity in the primary or hobbyist literature. Individuals sold in the ornamental fish trade are solely wild-caught.

Go to Question...

1 - Has the taxon been the subject of domestication (or cultivation) for at least 20 generations?

Navigation: <<First <Previous Next> Last>>

Assessment: Clear Q Fields Clear Assessment Cancel Save

Answered Questions: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55

Unanswered Questions

Not applicable Questions

In this dialog, the Assessor carries out the assessment for the taxon selected from the *Assessment List* in the *Main Assessment Workspace*. At the top of the dialog (title), details are provided of the *Taxon name* and *Assessor* together with the *Section* and *Category* of the corresponding Q. In total, 55 Qs must be answered for an assessment to be completed, even though there is no answering order imposed upon the Assessor. Thus, the Assessor can elect to answer any of the 55 Qs in any order of choice and resume his/her assessment at any time, hence completing the Qs later. However, the only constraint imposed on the Assessor is that he/she must complete for any Q the information relative to *Response*, *Confidence* and *Justification* before he/she can move on to the next Q.

In this dialog, three scenarios are possible that will affect the colour of the *Response*, *Confidence*, and *Justification* fields:

1. *Empty Q* – Fields display in light red;
2. *Completed Q* – Fields display in the colour scheme of choice;

### 3. *Edit mode* – Fields display in light yellow.

For a question to be in edit mode, the Assessor must be in the process of selecting an option from the *Response* or *Confidence* drop-downs or must be editing the *Justification* field. Also, whilst in edit mode, if either a *Response* or level of *Confidence* has not been specified or the *Justification* field is empty (or including only trailing spaces), then both *Navigation* and the *Save* button of the assessment are disabled.

The Assessor, typically a recognised expert, is required to respond to a sequence of questions, with each answer accompanied by appropriate bibliographic justification or other information (e.g. use of expert opinion) to justify the *Response* and by a ranking (from the Assessor) of his/her level of *Confidence* regarding that *Response*. The *Confidence* rankings used are those recommended by the International Programme on Climate Change (IPCC 2005): ‘Low’, ‘Medium’, ‘High’, ‘Very high’ (see also Copp et al. 2008). These modules can also be used in stand-alone mode, and they could easily be adapted for incorporation into the web-based (electronic) risk modules currently being developed by the European Plant Protection Organisation (e.g. EPPO 2007).

A selection of *Response* options is provided with each Q, and each *Response* must be accompanied by a *Confidence* ranking (i.e. measuring the Assessor’s level of *Confidence* in his/her *Response*). Each *Response* option is associated with a numerical score. This is based on the *Confidence* rankings suggested by the IPCC (2005), although the lowest *Confidence* ranking has not been used due to the lack of statistical reliability associated with it (J. Holt & J. Mumford, personal communication).

Modified IPCC scoring system used for *Confidence*:

- 1 – Low;
- 2 – Medium;
- 3 – High;
- 4 – Very high.

### (Question and details)

In this field, the text for the current Q is provided. The caption to this field indicates whether the current Q is part of the Basic Risk Assessment (i.e. Qs 1–49) or Climate Change Assessment (i.e. Qs 50–55) groups. Indication is also provided of the Q number out of the total (55) Qs.

### Question (Q) guidance

In this field, the text for the current Q guidance is provided.

### Response

From this drop-down, the Assessor selects the type of *Response* applicable to the current Q. This control displays in the *Colour scheme* of choice in case of a complete Q, in light red in case of an unanswered Q, and in light yellow if in edit mode.



## Confidence

From this drop-down control, the Assessor selects the level of *Confidence* applicable to the current Q. This control displays in the *Colour scheme* of choice in case of a complete Q, in light red in case of an unanswered Q, and in light yellow if in edit mode.

## -ISK Question compatibility

This field only appears in case of an assessment being carried out for one of the categories of aquatic organisms for which an -ISK toolkit was developed (i.e. Fishes and Lampreys (freshwater): FISK v1 and v2, S-FISK; Amphibians: AmphISK; Invertebrates (freshwater): FI-ISK; Fishes and Lampreys (marine): MFISK; Invertebrates (marine): MI-ISK) and applies only to the BRA Qs (i.e. 1–49). The purpose of this field is to provide guidance to the Assessor involved in a re-assessment of a taxon previously evaluated under -ISK and now in the AS-ISK (see *Start – -ISK (tab) – Import*). Given the lack of 100% backward compatibility between the 49 BRA Qs of -ISK and those of the AS-ISK, in this field information is provided on the level of similarity or lack thereof as follows:

- *Near identical* – The AS-ISK Q text has remained almost identical to the -ISK one. The field displays in the colour scheme of choice;
- *Similar* – The AS-ISK Q is only similar to the -ISK one. The field displays in light yellow;
- *Different* – The AS-ISK Q is different to the -ISK one. The field displays in red.

In addition, for the *Near identical* and *Similar* Qs the -ISK Q number is provided in parentheses (#).

## Help

Clicking this button opens the Help file (AS-ISK\_v2\_3\_3\_Help\_QA.pdf) for the current dialog. Note that the AS-ISK v2.3 Help files must be in the same folder as the AS-ISK v2.3 program.

## Justification (reference and/or other information)

In this field, the Assessor must provide any bibliographic references and/or other information in support to the selection of the Q-related *Response* and *Confidence*. This control displays in the colour scheme of choice in case of a complete Q, in light red in case of an unanswered Q, and in light yellow if in Edit mode. Notably, a string of trailing spaces in this field is considered to be the same as a blank entry Pasting (ctrl + V or by drag-and-drop) from the clipboard into this field is allowed, although a limit of 10,000 characters (including spaces) applies.

## Go to Question...

This drop-down allows fast navigation to any of the Qs in the assessment.

## Navigation

The navigation buttons in this section are all disabled in case of an incomplete Q whilst in edit mode.

### *First*

Clicking this button takes to the first Q (Q1) in the assessment. Disabled if at Q1.

### *Previous*

Clicking this button takes to the previous Q in the assessment. Disabled if at Q1.

### *Next*

Clicking this button takes to the next Q in the assessment. Disabled if at Q55.

### *Last*

Clicking this button takes to the last Q (Q55) in the assessment. Disabled if at Q55.

## **Assessment**

### *Clear Q Fields*

In case of a complete Q, clicking this button will clear all corresponding *Response*, *Confidence* and *Justification* fields for the current Q. Disabled if current Q unanswered. A message asks the Assessor whether he/she wants to proceed.

### *Clear Assessment*

Clicking this button will clear all *Response*, *Confidence* and *Justification* fields for all (answered) Qs in the assessment. Disabled in case of an entirely blank assessment (i.e. no answered Qs). A message asks the Assessor whether he/she wants to proceed.

### *Cancel*

Clicking this button abandons any changes made to any Qs in the assessment. In case of any changes to the assessment, a message asks the Assessor whether he/she wants to proceed.

### *Save*

Clicking this button saves the changes to the current assessment and database spreadsheet, and then closes the dialog.

## **Answered Questions**

This field lists the answered Qs in the assessment as identified by their corresponding number. Light red in case of an incomplete assessment (i.e. not all 55 Qs answered).

## **Unanswered Questions**

This field lists the unanswered Qs in the assessment as identified by their corresponding number. Light red in case of an incomplete assessment (i.e. not all 55 Qs answered).

## **Not applicable Questions**

This field lists the Qs in the assessment answered as 'Not applicable' as identified by their corresponding number. Notably, in any assessment no more than 5 Qs can be answered as 'Not applicable'. Also, should the Assessor not regard the Climate Change Qs (50–55) of relevance to the Risk assessment area under evaluation, then these questions can be answered each with 'No change' (this will result in a BRA+CCA score and corresponding BRA+CCA outcome identical to the BRA score and BRA outcome for that assessment after setting corresponding thresholds). Light red in case of an incomplete assessment (i.e. not all 55 Qs answered).

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