Uploading Data to Ictio.org

1. Introduction

In addition to the mobile app, **Ictio includes a database and upload tool to register fish observations in the Amazon basin.** Developed as part of the [Citizen Science for the Amazon project](), the Ictio upload tool allows citizen scientists, natural resource managers, researchers, conservation practitioners and others, to share information on fish catches through a large database that integrates fish observations across the Amazon basin. Specifically, users can upload .csv tables that have information on species catches, location and date (for more details on specific variables see the [variable descriptions]() below). To get a better idea of how to format your data, download the [sample data upload format]() and the [data template without data]().

Data uploaded using [ictio.org]() I can fit one of three protocols: catch protocol, market protocol and port protocol (for more details see the description of protocols below). By building a pan-Amazonian open access database, the project aims to catalyze the analyses of fish information that furthers our collective understanding and the conservation of Amazonian freshwaters.

2. Ictio Upload Data Format

The Ictio Upload Tool allows you to upload tables of records that include multiple observations organized in checklists.

Each *observation* made during a fishing event or market survey is recorded in a row in the table and contains data on one species (scientific name); for example, location and effort information.

Each observation includes unique data and data that is repeated in other rows for the same checklist such as location and date. Once the upload is done, **the Ictio.org platform will automatically group the observations with the same Latitude, Longitude, Date and Start Time, and will automatically create a unique identifier for this data set.**

This set of observations is called a checklist. A checklist gathers all the observations in a fishing event for a specific date and location. Examples of checklists are those made during a fishing trip, during fishing at a sampling site, a tour of sport fishing, or a single market survey. When using the port survey, there should be a different checklist for each group or person bringing in fish since the location should be where the fish were caught and not the port.

Each checklist can only have one observation for each scientific name, otherwise the data upload will fail. Column headers must contain common name, date, location and number of individuals (see file model). Below are instructions for preparing the data in excel. If you use another program, such as a text editor, make sure you know how to format the data correctly.

File Size Limitations

File sizes are limited to 1 MB for each import. You can import as much data as you wish, but the records must be separated into different files no larger than 1 MB.

Formatting your data in excel

Use the data template and the variable descriptions to format your data, both of which can be downloaded from Ictio.org. **The upload will not work unless each variable is in the correct column with the correct format.**

The Upload tool assumes row 1 is the header and will not attempt to load this row. No matter what the headings are in row 1, this row cannot be blank. All that matters is that there are headings, the data starts at row 2, and the data is in the correct columns.

Make sure you have data for every field that is required. You can check the list of variables (below) which explains what each one consists of. The variables are distributed in:

OBSERVATION VARIABLES
Column A: Scientific name - use valid Ictio names or species codes (below). You can use the scientific name or the species code in this list of valid names included below.
Column B: Number of individuals
Column C: Weight
Column D: Price per Kg in local national currency.
Column E: Comments on the species

CHECKLIST VARIABLES
Make sure the checklist level fields (**Columns G to J**) are all the same for each observation in the same fish list. The Ictio.org platform will populate these fields with the first observation (scientific name) in the list of fish it uploads, and will ignore these fields for all subsequent observations for that scientific name in the checklist.

The ictio.org platform will group all observations that have the same latitude, longitude, date and start time into unique checklists.

The checklist variables are:

Column F: Location name
Column G: Latitude of the location
Column H: Longitude of the location
Column I: Date

Column J: Start time
Column L: Protocol
Column K: Port name
Column M: Number of observers
Column N: Duration
Column O: All observations were reported?
Column P: Effort distance
Column Q: Comments on the fish list

If you have more than one checklist that contains the same Latitude, Longitude, Date and Start Time, that is, repeated scientific names with repeated information, you must upload them in separate upload files.

Preparing the file for submission

1. Use the data template and variable descriptions to format the data, both are available at Ictio.org. **Loading will not work unless each variable is in the correct column with the correct format**.
2. Make sure you have data for each required field.
3. Line breaks will be replaced by spaces. If you are using a text editor, jumps can cause the load to fail.
4. Save the file as a comma separated .csv file. You can verify this by opening the file in the notepad and verifying that the columns are separated by commas ","
5. If the file, on the other hand, is separated by a semicolon "; "You can open the document in the notepad, go to the option Edit -> Replace and change all the semicolons ";" by commas ",". This is the simplest way to prepare the document for upload.
6. Make sure the .csv file doesn't have any extra rows or columns. The csv file should only have 17 columns (A-Q). The extra rows or columns will cause the upload to fail.
7. Upload!

3. Data Format Troubleshooting and FAQs

What to do if your file won't load properly.

If you get a message back saying that the "Upload Failed", please go through the following checks to make sure your file is correct.
1. Make sure that your file is formatted as a .csv file and not an Excel (.xls) file or any other type of file. Ictio can only import files with saved as .csv files. You can do this by choosing "Save as" and then picking .csv as the file extension. Try opening the file in a text editor as a .txt file and checking the delimiter. If the values that separate the columns are not commas (for example, if they are semicolons), please see our Help Item on how to fix this issue.

2. Make sure your file does not exceed the 1 MB file size limit.
3. Make sure the columns are formatted properly (in the right order) as any shift out of place will result in an incorrigible file.
4. All observations reported (Column O) should simply be "Y" or "N", not 'yes' or 'no'.
5. If you are using a text editor, then make sure you know how to format a csv file. Misplaced quotation marks, hard returns, or commas can make the upload fail.

4. Description of Protocols:

1. Catch Protocol Assumptions: You should only use catch protocol when *you know when and where the fish were caught.*
   a. **Code** is P77 (Fishing, after the fishing event)
   b. **Location** is where fish were caught.
   c. **Date** is when fish were caught
   d. **Start time** is when the fishing effort started.
   e. **Checklist** should be marked as complete only if all of the fish caught are reported. If only some of the species are not reported then it is an incomplete checklist. If the taxa is not a valid taxa for upload, then add that quantity to "fish sp.".
   f. **Price** is 1st point of sale (i.e., the price fisherman sells for).
      i. Price per Kg is in local national currency
   g. Single checklist involves a single fishing effort and date

2. Market Protocol Assumptions: You should only use market protocol when registering fish surveyed in a market, therefore a single checklist can involve fish from multiple fishing efforts at different locations and dates
   a. Code is P78 (Market Survey)
   b. Location is of the market where the survey was conducted. Include the name of the market in location name
   c. Date when survey was conducted
   d. Checklist should be marked as complete if all species of the available taxa observed at the market are reported.
   e. Start time is when the survey took place.
   f. Price is the price at the market. Price per Kg is in local national currency.

3. Port Protocol Assumptions: You should only use port protocol when you know (generally) when and where the fish were caught. If you do not know where the fish are coming from then you should use the market survey. At the port, you are recording what is brought to port, not everything that was actually caught.
   a. Code is P79 (Port Survey)
   b. Data is collected at a port, and the data collector may not know who caught the fish.
   c. Location is where fish were caught. The location might be a community or a waterbody.
   d. Date is when fish were caught.

e. Start time is when the fishing effort started, although this data is probably not usually available at port.
f. Checklist comments: you can add notes on uncertainty in location and date, for example.
g. The checklist should be marked as complete if all of the fish brought to port are being reported.
h. Price is the one at the 1st point of sale, the price fisherman sells for. Price per Kg is in local national currency.
i. A single checklist might document the catch from multiple fishers over multiple days in a general location. Fish from different locations or different dates should be recorded as different checklists when possible.
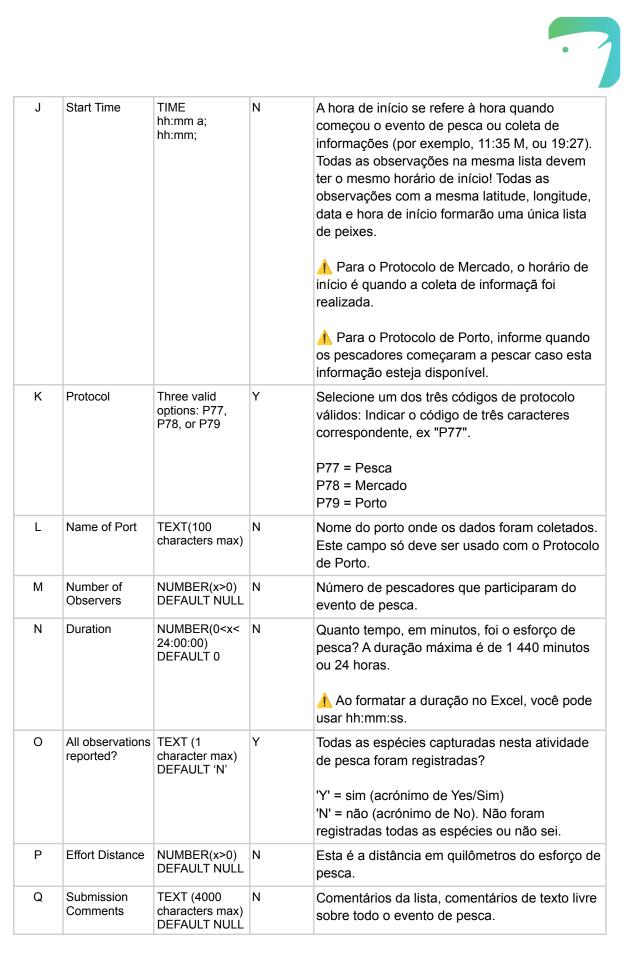
6. Variables Description

Column	Name	FORMATO (LONGITUD MÁXIMA)	Required?	Descripción
A	Scientific Name	STRING(64) DEFAULT NULL	Y	The scientific name or species code for the taxon. The name must be a valid Ictio name or Ictio species code, both of which are detailed in the list of valid names. There can only be one observation for each scientific name in a list. All observations with the same latitude, longitude, date and start time will form a single list. ⚠️ If there is more than one observation for a scientific name in a list of fish, that is, the same species is listed two or more times and has the same Latitude, Longitude, Date or Start time, the load will fail. ⚠️ If you have several observations for the same scientific name in the same list of fish, then these must be consolidated (add the number of individuals per species). ⚠️ Make sure you don't have multiple observations of the same species on the same list. This includes "fish sp". To verify this, you can sort the dataset by coordinates, start date and time.
B	Number	NUMBER(0<x< 999999) DEFAULT 'present'	Y	Number of individuals / number of observed fishes per specific species. If you do not know this quantity, then you fill this fiel with an "X".
C	Weight	DECIMAL(9999 99.99) DEFAULT NULL	N	Total weight in kg of all individuals observed for this species. ⚠️ If you know the number of individuals observed, make sure that the total weight corresponds to the number of individuals multiplied by their estimated individual weight.
D	Price	DECIMAL(9999 99.99) DEFAULT NULL	N	This is the price per kilogram for this species that the fishers sell their catch for. For Market Survey, use the price at market. ⚠️ Price refers to the national currency for the country where the checklist is assigned.
E	Species Comments	STRING(4000) DEFAULT NULL	N	General comments about the observation for this species.

F	Location Name	TEXT(254 characters max)	N	The name of the place can be defined by the user, for example name of river or lagoon, name of port or market. ⚠️ For the Fishing and Port Protocols, it is where the fish was caught. ⚠️For Market Protocol, it is hte name of the market or point of sale.
G	Latitude	NUMBER (-90<x<90)	Y	Latitude of the location should be in decimal degrees. For instance , -1.33456. Thay should NOT be in degrees, minutes and seconds. ⚠️ Positive values are in the northern hemisphere; negative values are in south of the equator. ⚠️ For the Fishing and Port Protocols, this is the latitude where the fish was caught. For the Market Protocol, this is the latitude of the market. ⚠️ All observations with the same Latitude, Longitude, Date, and Start Time will form a single checklist.
H	Longitude	NUMBER (-180<=x<=180)	Y	Longitude of the location. It must be in decimal degrees. Remember that all longitudes in South America must be negative! ⚠️ For the catch protocol and port protocol, this is the latitude of the place where the fish were caught. For market surveys, this is the latitude of the market. ⚠️ All observations with the same latitude, longitude, date and start time will form a single list.
I	Date	DATE mm/dd/yyyy	Y	It is the date these observations were made (eg, 01/26/2004 or 5/13/2004). For port and catch point surveys, use the date the fish were caught. For market surveys, use the date of the survey. Make sure this field is in the correct format. ⚠️ Remember that all observations with the same latitude, longitude, date and start time will form a single fish list. ⚠️ When formatting the date in Excel, you can use m / d / yyyy or mm / dd / yyyy.

J	Start Time	TIME hh:mm a; hh:mm;	N	A hora de início se refere à hora quando começou o evento de pesca ou coleta de informações (por exemplo, 11:35 M, ou 19:27). Todas as observações na mesma lista devem ter o mesmo horário de início! Todas as observações com a mesma latitude, longitude, data e hora de início formarão uma única lista de peixes. ⚠️ Para o Protocolo de Mercado, o horário de início é quando a coleta de informaçã foi realizada. ⚠️ Para o Protocolo de Porto, informe quando os pescadores começaram a pescar caso esta informação esteja disponível.
K	Protocol	Three valid options: P77, P78, or P79	Y	Selecione um dos três códigos de protocolo válidos: Indicar o código de três caracteres correspondente, ex "P77". P77 = Pesca P78 = Mercado P79 = Porto
L	Name of Port	TEXT(100 characters max)	N	Nome do porto onde os dados foram coletados. Este campo só deve ser usado com o Protocolo de Porto.
M	Number of Observers	NUMBER(x>0) DEFAULT NULL	N	Número de pescadores que participaram do evento de pesca.
N	Duration	NUMBER(0<x< 24:00:00) DEFAULT 0	N	Quanto tempo, em minutos, foi o esforço de pesca? A duração máxima é de 1 440 minutos ou 24 horas. ⚠️ Ao formatar a duração no Excel, você pode usar hh:mm:ss.
O	All observations reported?	TEXT (1 character max) DEFAULT 'N'	Y	Todas as espécies capturadas nesta atividade de pesca foram registradas? 'Y' = sim (acrónimo de Yes/Sim) 'N' = não (acrónimo de No). Não foram registradas todas as espécies ou não sei.
P	Effort Distance	NUMBER(x>0) DEFAULT NULL	N	Esta é a distância em quilômetros do esforço de pesca.
Q	Submission Comments	TEXT (4000 characters max) DEFAULT NULL	N	Comentários da lista, comentários de texto livre sobre todo o evento de pesca.

7. Valid Names:

Orden del taxón	Código de Especie	Nombre científico
1	potamo1	Potamotrygon sp.
2	ostbic1	Osteoglossum bicirrhosum
3	f-aragig1	Arapaima sp.
4	pelcas1	Pellona castelnaeana
5	pelfla1	Pellona flavipinnis
6	eryery1	Erythrinus erythrinus
7	hopuni1	Hoplerythrinus unitaeniatus
8	hopmal1	Hoplias malabaricus
9	parbuc1	Parodon buckleyi
10	parpon1	Parodon pongoensis
11	cyngib1	Cynodon gibbus
12	hydarm1	Hydrolycus armatus
13	hydsco1	Hydrolycus scomberoides
14	rhavul1	Rhaphiodon vulpinus
15	f-colmac1	Colossoma macropomum
16	methyp1	Metynnis hypsauchen
17	myleus1	Myleus sp.
18	mylrub1	Myloplus rubripinnis
19	mylsch1	Myloplus schomburgkii
20	myloss1	Mylossoma sp.
21	mylaur1	Mylossoma aureum
22	f-myldur1	Mylossoma albiscopum
23	f-piabra1	Piaractus brachypomus
24	pygnat1	Pygocentrus nattereri
25	serras1	Serrasalmus sp.
26	serrho1	Serrasalmus rhombeus
27	serspi1	Serrasalmus spilopleura

28	anodus1	Anodus sp.
29	f-anoelo1	Anodus elongatus
30	hemiod1	Hemiodus sp.
31	f-anosto1	Anostomidae sp.
32	anolat1	Anostomoides atrianalis
33	lepfri1	Leporinus friderici
34	leptri1	Megaleporinus trifasciatus
35	schfas1	Schizodon fasciatus
36	schvit1	Schizodon vittatus
37	curino1	Curimata inornata
38	curvit1	Curimata vittata
39	cypabr1	Cyphocharax abramoides
40	curima1	Curimatidae sp.
41	f-potamo1	Potamorhina sp.
42	potalt1	Potamorhina altamazonica
43	potlat1	Potamorhina latior
44	f-psectr1	Psectrogaster sp.
45	pseama1	Psectrogaster amazonica
46	pserut1	Psectrogaster rutiloides
47	stebim1	Steindachnerina bimaculata
48	f-pronig1	Prochilodus nigricans
49	semapr1	Semaprochilodus sp.
50	f-semins1	Semaprochilodus insignis
51	semtae1	Semaprochilodus taeniurus
52	boulen1	Boulengerella sp.
53	f-tripor1	Triportheus sp.
54	triang1	Triportheus angulatus
55	triaur1	Triportheus auritus
56	f-brycon1	Brycon sp.
57	bryama1	Brycon amazonicus
59	brymel1	Brycon melanopterus

60	salmin1	Salminus sp.
61	acefal1	Acestrorhynchus falcirostris
62	astyan1	Astyanax sp.
63	charax1	Charax sp.
64	agenei1	Ageneiosus sp.
65	ageine1	Ageneiosus inermis
66	aucnuc1	Auchenipterus nuchalis
67	tragal1	Trachelyopterus galeatus
68	amblyd1	Amblydoras sp.
69	megura1	Megalodoras uranoscopus
70	oxynig1	Oxydoras niger
71	ptegra1	Pterodoras granulosus
72	bracap1	Brachyplatystoma capapretum
73	brafil1	Brachyplatystoma filamentosum
74	f-brajur1	Brachyplatystoma juruense
75	f-brapla1	Brachyplatystoma platynemum
76	f-brarou1	Brachyplatystoma rousseauxii
77	bratig1	Brachyplatystoma tigrinum
78	f-bravai1	Brachyplatystoma vaillantii
79	calmac1	Calophysus macropterus
80	hempla1	Hemisorubim platyrhynchos
81	hypoph1	Hypophthalmus sp.
82	hypede1	Hypophthalmus edentatus
83	hypfim1	Hypophthalmus fimbriatus
84	f-hypmar1	Hypophthalmus marginatus
85	leimar1	Leiarius marmoratus
86	megpla1	Megalonema platycephalum
87	perper1	Leiarius perruno
88	phrhem1	Phractocephalus hemioliopterus
89	pimfla1	Pimelodina flavipinnis
90	f-pimelo1	Pimelodus sp.

91	pimblo1	Pimelodus blochii
92	pinpir1	Pinirampus pirinampu
93	planot1	Platynematichthys notatus
94	plamuc1	Platysilurus mucosus
95	plastu1	Platystomatichthys sturio
96	pseudo3	Pseudoplatystoma sp.
97	f-psefas1	Pseudoplatystoma fasciatum
98	psepun1	Pseudoplatystoma punctifer
99	f-psetig1	Pseudoplatystoma tigrinum
100	sorelo1	Sorubim elongatus
101	sorlim1	Sorubim lima
102	sorman1	Sorubim maniradii
103	sorpla1	Sorubimichthys planiceps
104	f-zunzun1	Zungaro zungaro
105	corydo1	Corydoras sp.
106	hoplos1	Hoplosternum sp.
107	hoplit1	Hoplosternum littorale
108	lorica1	Loricariinae sp.
109	hypost1	Hypostomus sp.
110	pteryg1	Pterygoplichthys sp.
111	ptedis1	Pterygoplichthys disjunctivus
112	ptepar1	Pterygoplichthys pardalis
113	eleele1	Electrophorus sp.
114	adobal1	Adontosternarchus balaenops
115	potgui1	Potamorrhaphis guianensis
116	petgru1	Petilipinnis grunniens
117	plamon1	Plagioscion montei
118	plasqu1	Plagioscion squamosissimus
119	plasur1	Plagioscion magdalenae
120	aeqtet1	Aequidens tetramerus
121	astcra1	Astronotus crassipinnis

122	astoce1	Astronotus ocellatus
123	cichla1	Cichla sp.
124	cicmon1	Cichla monoculus
125	cicple1	Cichla pleiozona
126	cictem1	Cichla temensis
127	creret1	Crenicichla reticulata
128	geopro1	Geophagus proximus
129	herefa1	Heros efasciatus
130	satjur1	Satanoperca jurupari
131	achach1	Achirus achirus
132	f-fish1	Fish sp.