FishBase

INTRODUCTION

1. Introduction

1.1 General

FishBase is an information system with key data on the biology of all fishes.

Objective of FishBase: transfer of knowledge and information to developing countries, often lacking library and data facilities.

1. Introduction

1.2 History and development of FishBase

- Project proposal to ICLARM in 1988 by D. Pauly and R. Froese: initially data for 200 species and ultimate goal of 2500 species.

- Development of FishBase at ICLARM (currently WorldFish Center) in collaboration with FAO a.o., funded with sequential grants from the European Commission (first in 1989).

1. Introduction

1.2 History and development of FishBase

- 1990-1995: quality control of data and implementation; use of latest revisions for taxonomy.
- Continuous activities: data entry, database inspection and improvement (e.g. transfer from DataEase to MS Access), quality control.
- First CD released in 1994: limited in-house production of a demo version.

1. Introduction

1.2 History and development of FishBase

- 1995: release of FishBase 100: first commercial production of 130 copies for collaborators and some early buyers; 1000 additional copies distributed elsewhere.
- 1996: 1000 copies produced with improved interface and more/better pictures; first idea to go online.
- 1997-1999: first data searchable on the internet since 1998; FishBase 1997 and 1998 needs 2 CD-ROMs, FishBase 1999 already 3 CD-ROMs.

1. Introduction

1.2 History and development of FishBase

- Major change in 2000: ending of EC funding and installation of the FishBase Consortium.

(Since 2004)

(Since 2007)

(Since 2014)

1. Introduction

1.2 History and development of FishBase

- Mid 2000: 25000 species threshold passed
  Early 2008: 30000 species threshold passed.

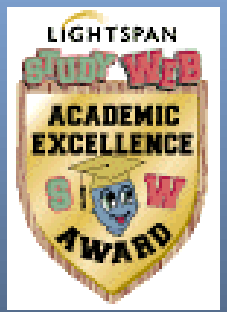
- FishBase 2000 comes on 4 CD-ROMs, FishBase 2004 on 5 CD-ROMs or 1 DVD. Latest version (2013) with web interface.

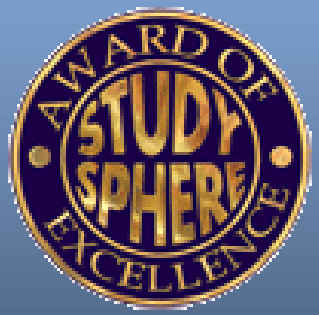
- Currently: 33400 Species , 318900 common names, 57800 pictures, 53300 references, 2260 collaborators, 700000 visits/month (10/2016).

1. Introduction

1.2 History and development of FishBase

- Positive reviews in international journals: Aquaculture, Journal of Fish Biology, Nature, Japanese Journal of Ichthyology, Environmental Biology of Fishes, Reviews in Fish Biology and Fisheries, Science.
- FishBase Awards:





- Use in publications: over 2000 international publications refer to FishBase data

1. Introduction

1.2 History and development of FishBase

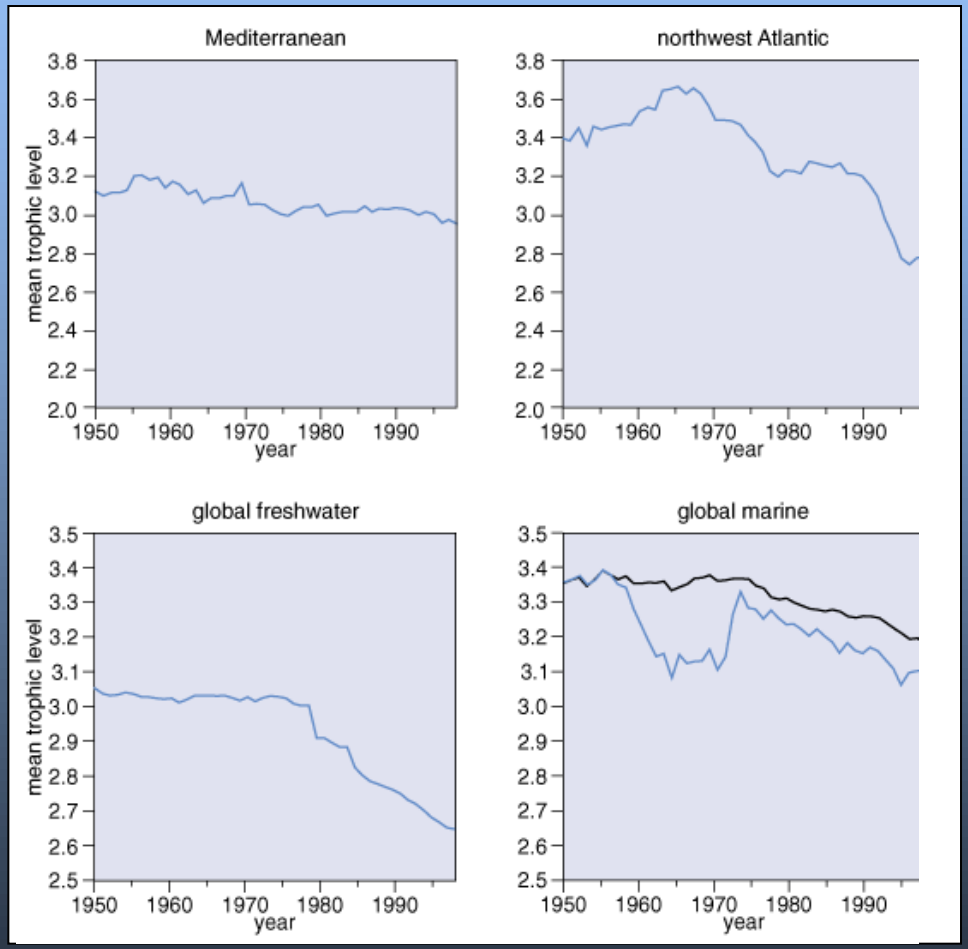
- Data accumulated over years allows new scientific studies (e.g. Pauly's "Fishing down food webs").

Pauly, D., V. Christensen, J. Dalsgaard, R. Froese and F. Torres Jr. (1998). Fishing down marine food webs. *Science* 279: 860-863.

Fishing Down Marine Food Webs

Daniel Pauly,* Villy Christensen, Johanne Dalsgaard, Rainer Froese, Francisco Torres Jr.

The mean trophic level of the species groups reported in Food and Agricultural Organization global fisheries statistics declined from 1950 to 1994. This reflects a gradual transition in landings from long-lived, high trophic level, piscivorous bottom fish toward short-lived, low trophic level invertebrates and planktivorous pelagic fish. This effect, also found to be occurring in inland fisheries, is most pronounced in the Northern Hemisphere. Fishing down food webs (that is, at lower trophic levels) leads at first to increasing catches, then to a phase transition associated with stagnating or declining catches. These results indicate that present exploitation patterns are unsustainable.

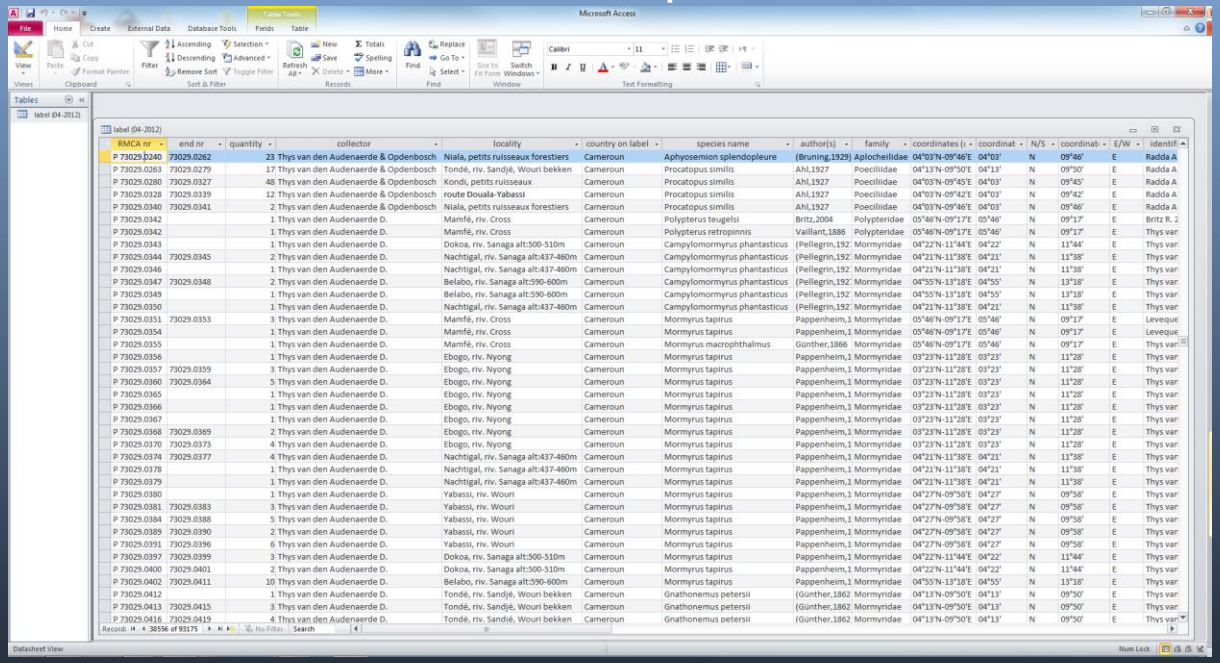


1. Introduction

1.3 Contribution of RMCA to FishBase

- RMCA is founding member of the FishBase Consortium.

- Original contribution: providing an electronic copy and annual updates of the specimen collection to FishBase: currently approximately 86000 records and about 1.000.000 specimens.



1. Introduction

1.3 Contribution of MRAC to FishBase

- At present: responsible for checking and updating the information on the freshwater (and brackish water) fish species of Africa using Remote Data Entry (RDE); RMCA is the second largest data contributor.

- Main tasks: updating species information and taxonomic backbone, adding new species, completing checklists, entering recent ichthyofaunal guides,…

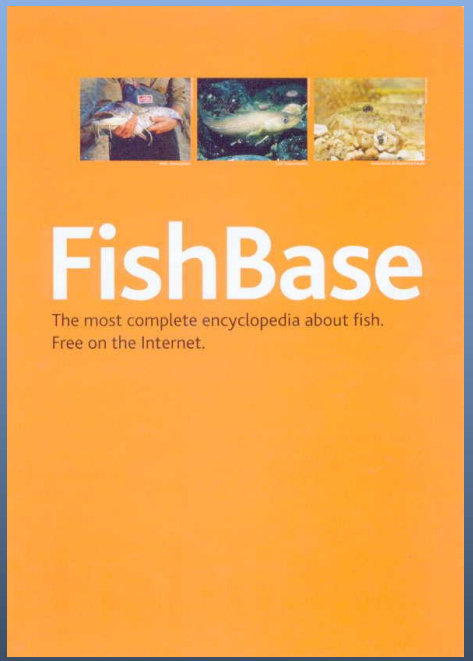
- Other tasks include development of freshwater Aquamaps for Africa, FishBase for Africa (www.FishBaseForAfrica.org),...

1. Introduction

1.3 Contribution of MRAC to FishBase

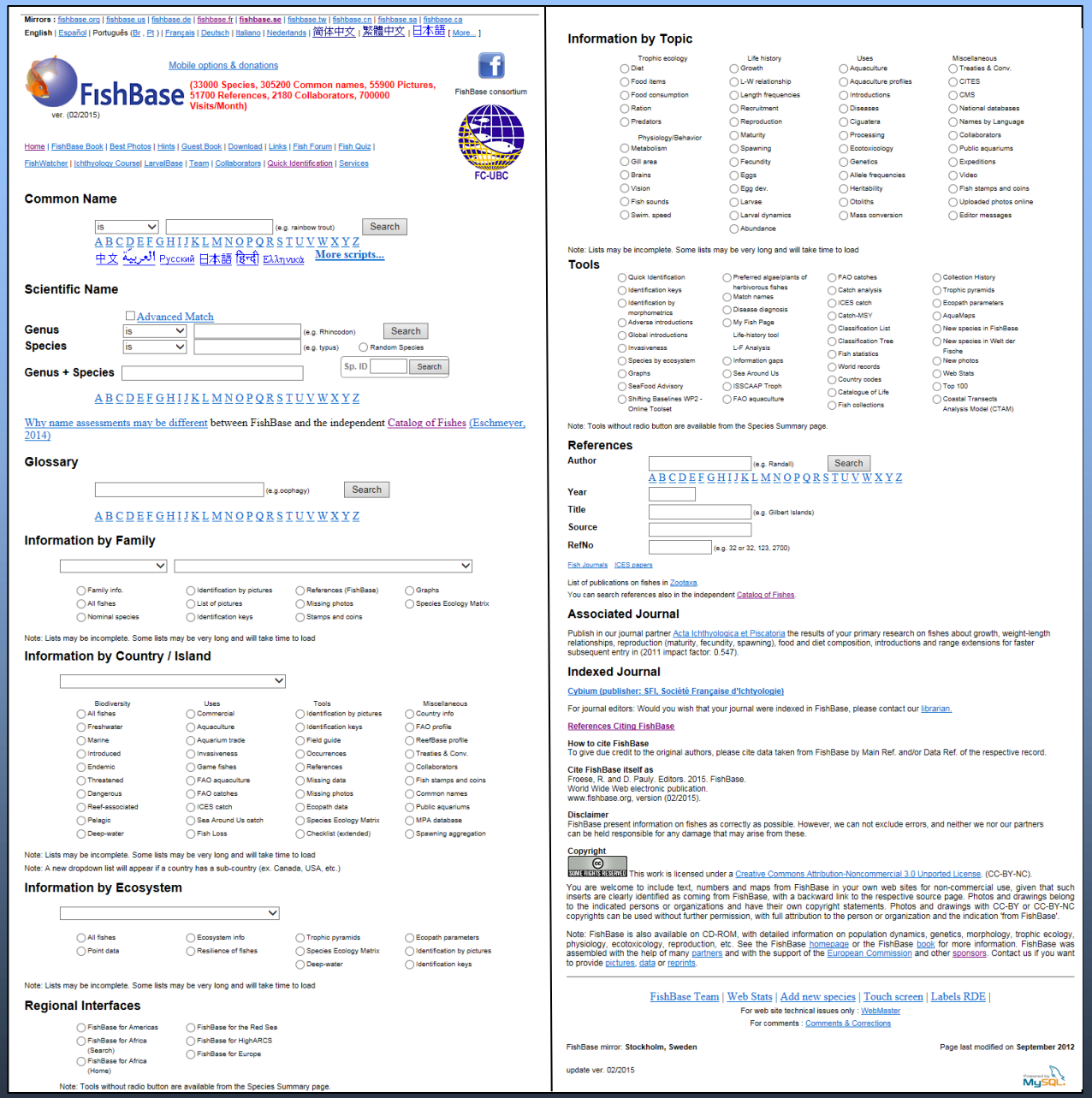
- Other regular activities: distribution of FishBase DVDs, presentation of FishBase to researchers and students, providing user feedback,…;

- Since 2005 the RMCA annually organizes the "FishBase and Fish Taxonomy" training for African researchers; since 2015 a local FishBase training is organized (Senegal, Kenya; next in Cameroon)



2. FishBase

2.1 Search Page



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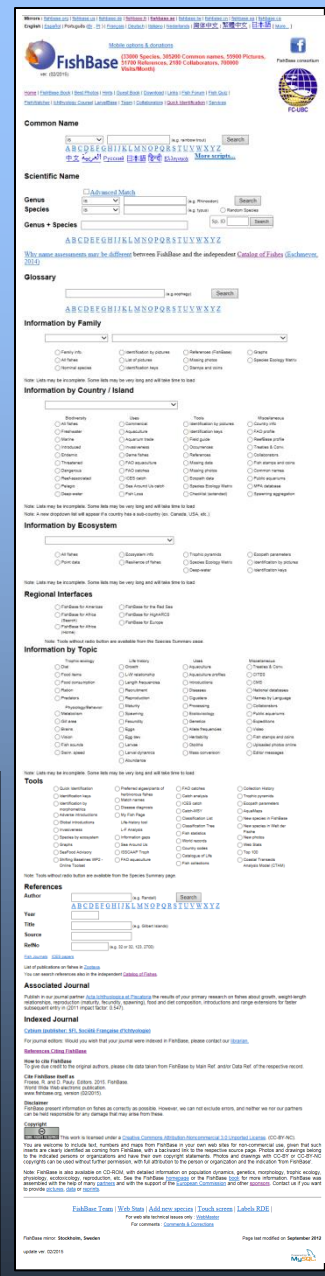

- One of the most important pages in FishBase.
- Links to mirror sites in France, Germany, Sweden, USA, China, Taiwan and Canada:
  - updated bimonthly from the main server in the Philippines
  - information up-to-date compared to CD-ROMs or DVD

2. FishBase

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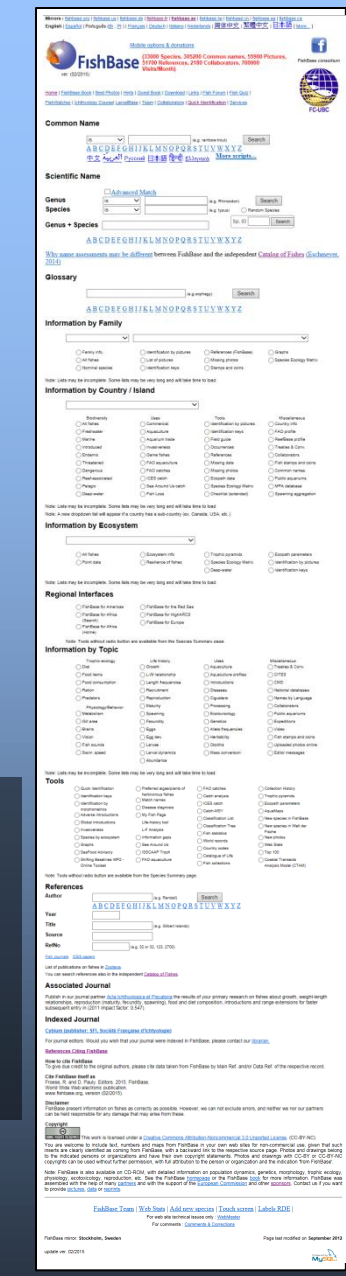

- Interface and pages translated in different languages (except for free-text fields); machine translation under development.
- Indication of current contents of FishBase

2. FishBase

2.1 Search Page

1

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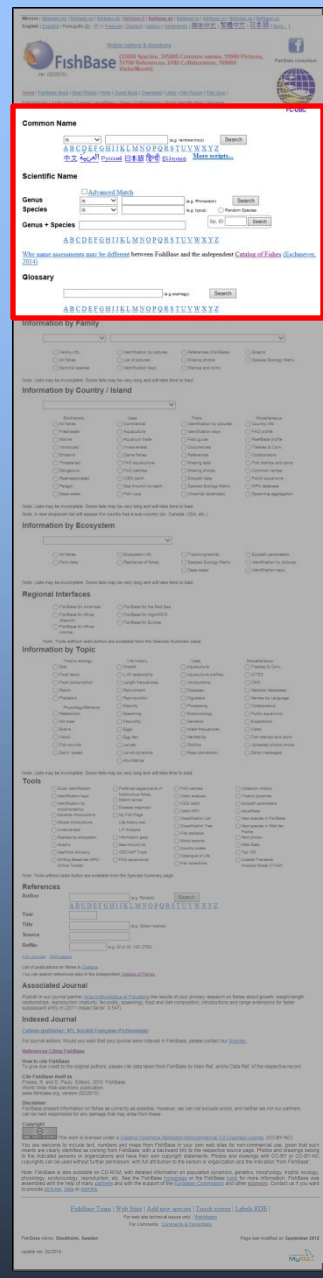
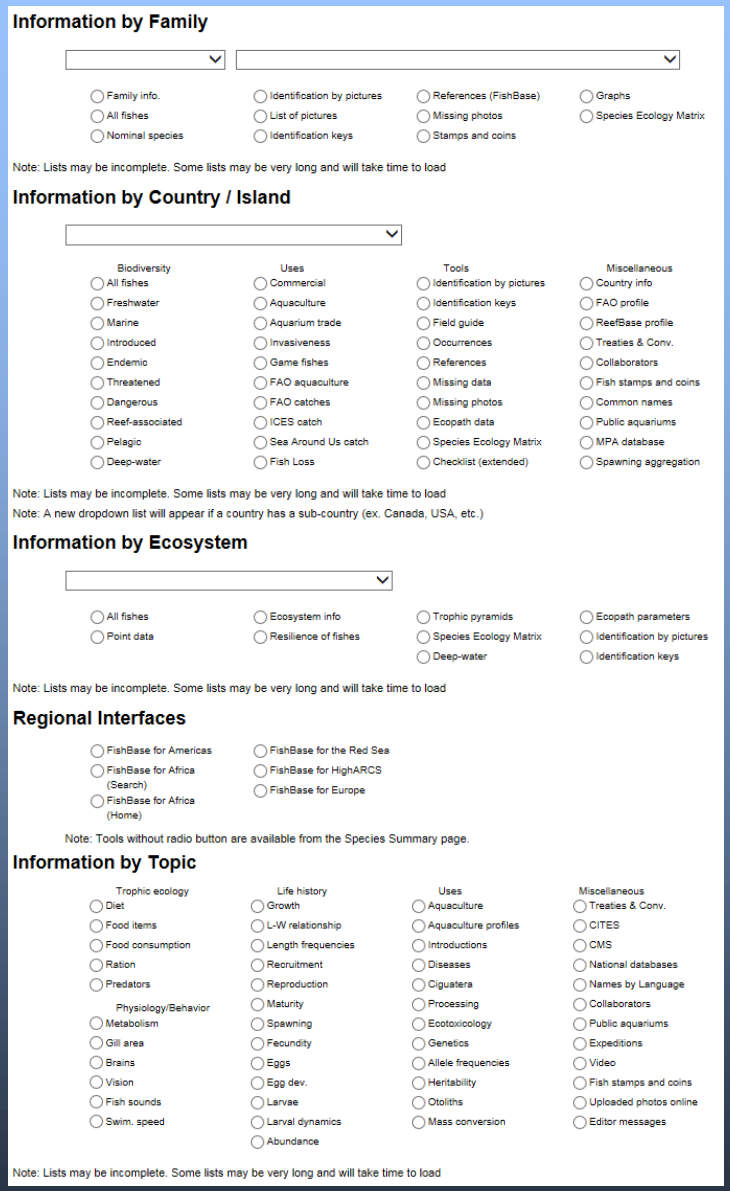


1. Different search strategies to find a species: common name and scientific name.
2. Glossary

2. FishBase

2.1 Search Page

General and detailed information by family, country, ecosystem and topic



Information by Family

Family info. | Identification by pictures | References (FishBase) | Graphs
All fishes | List of pictures | Missing photos | Species Ecology Matrix
Nominal species | Identification keys | Stamps and coins

Note: Lists may be incomplete. Some lists may be very long and will take time to load

Information by Country / Island

Biodiversity	Uses	Tools	Miscellaneous
All fishes	Commercial	Identification by pictures	Country info
Freshwater	Aquaculture	Identification keys	FAO profile
Marine	Aquarium trade	Field guide	ReefBase profile
Introduced	Invasiveness	Occurrences	Treaties & Conv.
Endemic	Game fishes	References	Collaborators
Threatened	FAO aquaculture	Missing data	Fish stamps and coins
Dangerous	FAO catches	Missing photos	Common names
Reef-associated	ICES catch	Ecopath data	Public aquariums
Pelagic	Sea Around Us catch	Species Ecology Matrix	MPA database
Deep-water	Fish Loss	Checklist (extended)	Spawning aggregation

Note: Lists may be incomplete. Some lists may be very long and will take time to load
Note: A new dropdown list will appear if a country has a sub-country (ex. Canada, USA, etc.)

Information by Ecosystem

All fishes | Ecosystem info | Trophic pyramids | Ecopath parameters
Point data | Resilience of fishes | Species Ecology Matrix | Identification by pictures
Deep-water | Identification keys

Note: Lists may be incomplete. Some lists may be very long and will take time to load

Regional Interfaces

FishBase for Americas | FishBase for the Red Sea
FishBase for Africa (Search) | FishBase for HighARCS
FishBase for Africa (Home) | FishBase for Europe

Note: Tools without radio button are available from the Species Summary page.

Information by Topic

Trophic ecology	Life history	Uses	Miscellaneous
Diet	Growth	Aquaculture	Treaties & Conv.
Food items	L-W relationship	Aquaculture profiles	CITES
Food consumption	Length frequencies	Introductions	CMS
Ration	Recruitment	Diseases	National databases
Predators	Reproduction	Ciguatera	Names by Language
Physiology/Behavior	Maturity	Processing	Collaborators
Metabolism	Spawning	Ecotoxicology	Public aquariums
Gill area	Fecundity	Genetics	Expeditions
Brains	Eggs	Allele frequencies	Video
Vision	Egg dev.	Heritability	Fish stamps and coins
Fish sounds	Larvae	Otoliths	Uploaded photos online
Swim. speed	Larval dynamics	Mass conversion	Editor messages
	Abundance		

Note: Lists may be incomplete. Some lists may be very long and will take time to load

2. FishBase

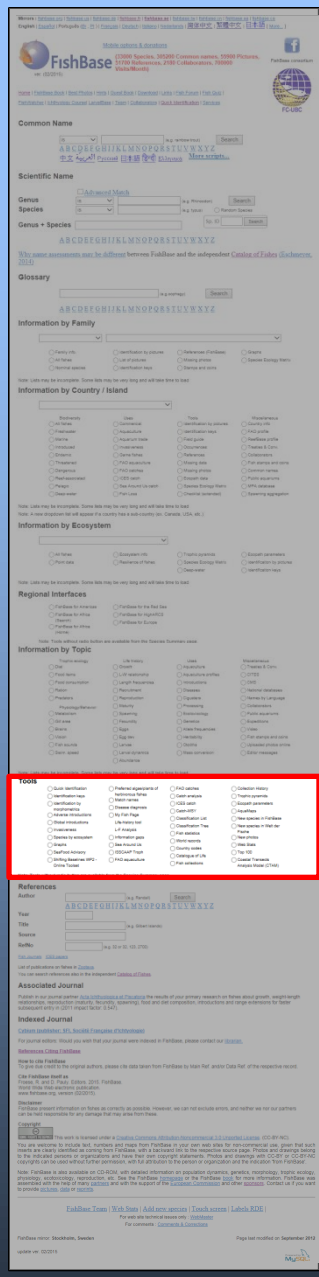
2.1 Search Page

Tools

- Quick Identification
- Identification keys
- Identification by morphometrics
- Adverse introductions
- Global introductions
- Invasiveness
- Species by ecosystem
- Graphs
- SeaFood Advisory
- Shifting Baselines WP2 - Online Toolset
- Preferred algae/plants of herbivorous fishes
- Match names
- Disease diagnosis
- My Fish Page
- Life-history tool
- L-F Analysis
- Information gaps
- Sea Around Us
- ISSCAAP Troph
- FAO aquaculture
- FAO catches
- Catch analysis
- ICES catch
- Catch-MSY
- Classification List
- Classification Tree
- Fish statistics
- World records
- Country codes
- Catalogue of Life
- Fish collections
- Collection History
- Trophic pyramids
- Ecopath parameters
- AquaMaps
- New species in FishBase
- New species in Welt der Fische
- New photos
- Web Stats
- Top 100
- Coastal Transects Analysis Model (CTAM)

Note: Tools without radio button are available from the Species Summary page.

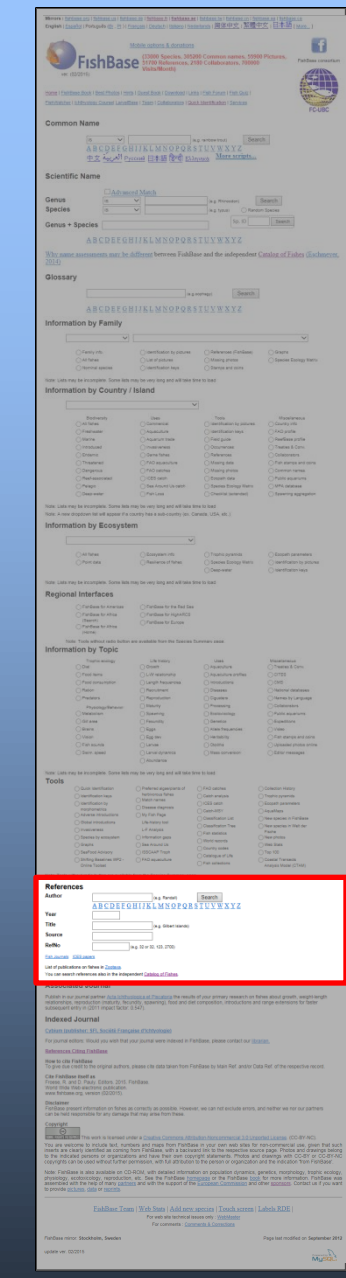
Tools: (quick) identification and identification keys, disease diagnosis, catch analysis, fish collections, trophic pyramids, Aquamaps, …



2. FishBase

2.1 Search Page

References system using reference numbers



2. FishBase

2.1 Search Page

References system using reference numbers

Biology **Glossary** Search (e.g. epibenthic)

Adults occur mainly in quiet waters, lakes and pools (Ref. 248) and prefer rather shallow and swampy areas with a soft muddy substrate and calmer water (Ref. 78218). They may also occur in fast flowing rivers and in rapids (Ref. 248, 78218). Widely tolerant of extreme environmental conditions (Ref. 6465). Water parameters appear to play

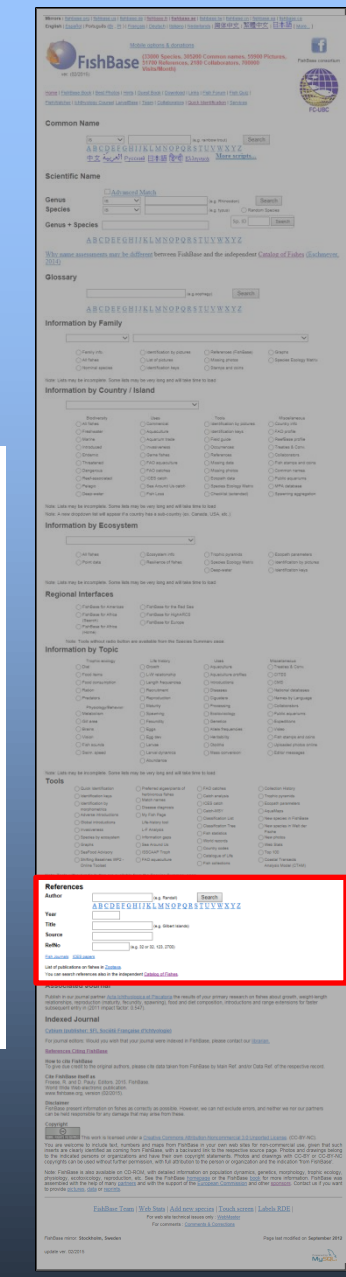
Teugels, G.G., 1986

this species to breath ponds and occasionally al fins and spines in

Citation
DOI
Paper URL
E-mail
Address
Ref. No.
Language
Usage
Comments
Remarks
Find this reference in

Seegers, L., 2008

Citation	**Seegers, L.**, 2008. The catfishes of Africa: A handbook for identification and maintenance. Aqualog Verlag A.C.S. GmbH, Germany. 604 p.
DOI	http://dx.doi.org/
Paper URL	
E-mail	
Address	
Ref. No.	78218
Language	English
Usage	used in part
Comments	
Remarks	
Find this reference in	Google Scholar | Scirus | Species used from this reference



2. FishBase

2.1 Search Page

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To give due credit to the original authors, please cite data taken from FishBase by Main Ref. and/or Data Ref. of the respective record.

Cite FishBase itself as
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World Wide Web electronic publication.
www.fishbase.org, version (02/2015).

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2

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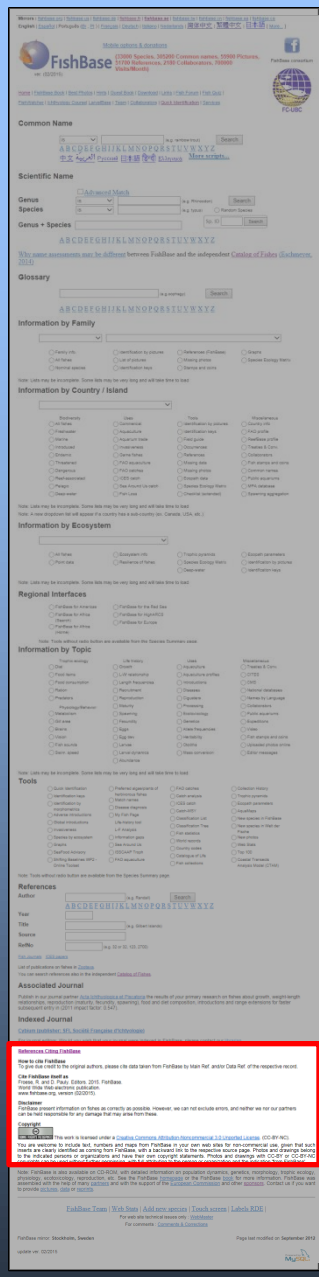
1. How to cite FishBase and its data
2. Copyright statement



2. FishBase

2.2 Species Summary Page

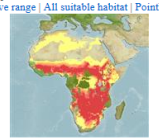
About this page | Languages | User feedbacks | Citation | Uploads | Related species

Clarias gariepinus (Burchell, 1822)
North African catfish

Upload your photos and videos
Pictures | Stamps, Coins | Google image

Clarias gariepinus
Picture by Larsen, J.H.

Add your observation in Fish Watcher
Native range | All suitable habitat | PointMap



This map was computer-generated and has not yet been reviewed.
Clarias gariepinus AquaMaps Data sources: GBIF OBIS

Classification / Names — Common names | Synonyms | Catalog of Fishes (gen., sp.) | ITIS | CoL | WoRMS | Cloffa

Actinopterygii (ray-finned fishes) > Siluriformes (Catfish) > Clariidae (Airbreathing catfishes)
Etymology: *Clarias:* Greek, chlaros = lively, in reference to the ability of the fish to live for a long time out of water; *gariepinus:* Named after its type locality, the Gariep river, the Hottentot name for the Orange river, South Africa.

Environment / Climate / Range — Ecology

Freshwater; benthopelagic; pH range: 6.5 - 8.0; dH range: 5 - 28; potamodromous (Ref. 51243); depth range 0 - 80 m (Ref. 34291). Subtropical; 8°C - 35°C (Ref. 6465); 52°N - 28°S

Length at first maturity / Size / Weight / Age

Maturity: L_m 30.8, range 34 - ? cm
Max length : 170 cm TL male/unsexed; (Ref. 40637); common length : 90.0 cm NG male/unsexed; (Ref. 34290); max. published weight: 60.0 kg (Ref. 4537); max. reported age: 15 years (Ref. 94815)

Short description — Morphology | Morphometrics

Dorsal spines (total): 0; Dorsal soft rays (total): 61-80; Anal spines: 0; Anal soft rays: 45 - 65; Vertebrae: 56 - 63. Diagnosis: body depth 6-8 times in standard length, head 3-3,5 times (Ref. 34290). Head somewhat between rectangular and pointed in dorsal outline; snout broadly rounded; eyes supero-lateral and relatively small (Ref. 248). Teeth on premaxilla and lower jaw small, fine and arranged in several rows; nasal barbels 1/5-1/2 times as long as head in fishes longer than 12 cm, and 1/2-4/5 of head length in smaller individuals; maxillary barbels rarely shorter than head, usually somewhat longer and reaching to a point midway between origin of dorsal fin and insertion of pelvic fins; outer mandibular barbel longer than inner pair (Ref. 34290). Contrary to other *Clarias* species, *Clarias gariepinus* has a high number of gill rakers varying from 24-110, the number increasing with size of the fish; gill rakers long, slender and closely set (Ref. 248, 34290). Distance between occipital process and base of dorsal fin is short; dorsal fin almost reaches caudal fin; anal fin origin closer to caudal fin base than to snout, nearly reaching caudal fin; pelvic fin closer to snout than to caudal fin base; pectoral fin extends from operculum to below 1st dorsal fin rays; pectoral spine robust, serrated only on its outer face, the number of serrations increasing with age; lateral line appears as a small, white line from posterior end of head to middle of caudal fin base; openings to secondary sensory canals clearly marked (Ref. 248). Coloration: 2 colour patterns can be discerned: uniform and marbled pattern; in uniform pattern, dorsal surface and flanks of body and dorsal parts of pectoral and pelvic fins are generally dark greyish-greenish black, while belly and ventral parts of paired fins are lightly coloured; in marbled pattern, specimens show irregular dark blotches on light coloured background above and laterally, belly and ventral parts of the paired fins are whitish (Ref. 248). Most specimens show pigmentation bands on both sides of lower surface of head; a series of light and dark bands may occur on caudal fin; proximal third of caudal fin lightly coloured while other part is dark; occasionally, irregular black spots may occur on caudal fin (Ref. 248).

Distribution — Countries | FAO areas | Ecosystems | Occurrences | Point map | Introductions | Faunafri

Africa: almost Pan-Africa, absent from Maghreb, the upper and lower Guinea and the Cape province and probably also Nogal province. Asia: Jordan, Israel, Lebanon, Syria and southern Turkey. Widely introduced to other parts of Africa, Europe and Asia. Several countries report adverse ecological impact after introduction.

Biology — Glossary Search (e.g. epibenthic)

Adults occur mainly in quiet waters, lakes and pools (Ref. 248) and prefer rather shallow and swampy areas with a soft muddy substrate and calmer water (Ref. 78218). They may also occur in fast flowing rivers and in rapids (Ref. 248, 78218). Widely tolerant of extreme environmental conditions (Ref. 6465). Water parameters appear to play only a very minor role (Ref. 78218). The presence of an accessory breathing organ enables this species to breath air when very active or under very dry conditions. They remain in the muddy substrates of ponds and occasionally gulp air through the mouth (Ref. 6465). Can leave the water at night using its strong pectoral fins and spines in search of land-based food or can move into the breeding areas through very shallow pathways (Ref. 6868). Are omnivorous bottom feeders which occasionally feed at the surface (Ref. 248). Feed at night on a wide variety of prey (Ref. 6868) like insects, plankton, invertebrates and fish but also take in young birds, rotting flesh and plants (Ref. 6465). Migrate to rivers and temporary streams to spawn (Ref. 34291). Also caught with dragnets. During intra-specific aggressive interactions, this species was noted to generate electric organ discharges that were monophasic, head-positive and lasting from 5-260 ms (Ref. 10479). Known as sharptooth catfish in aquaculture, a highly recommended food fish in Africa (Ref. 52863). Marketed fresh and frozen; eaten broiled, fried and baked (Ref. 9987).

Life cycle and mating behavior — Maturity | Reproduction | Spawning | Eggs | Fecundity | Larvae

Oviparous. Spawning takes place during the rainy season in flooded deltas. The fishes make a lateral migration towards the inundated plains to breed and return to the river or lake soon afterwards while the juveniles remain in the inundated area. Juveniles return to the lake or river when they are between 1.5 and 2.5 cm long (Ref. 34291). First sexual maturity occurs when females are between 40-45 cm and males between 35-40 cm. Eggs are greenish. Incubations lasts little (about 33 hours at 25°C).

Main reference — Upload your references | References | Coordinator | Collaborators

Teugels, G.G., 1986. A systematic revision of the African species of the genus *Clarias* (Pisces; Clariidae). Ann. Mus. R. Afr. Centr., Sci. Zool., 247:199 p. (Ref. 248)

IUCN Red List Status (Ref. 96402)	CITES (Ref. 94142)	Threat to humans
Least Concern (LC)	Not Evaluated	Potential pest (Ref. 4537)

Human uses

Fisheries: minor commercial; aquaculture: commercial; gamefish: yes

FAO(Aquaculture: production; fisheries: production, species profile; publication : search) | FisheriesWiki | Sea Around Us

More information

Countries	Common names	Age/Size	References	Collaborators
FAO areas	Synonyms	Growth	Aquaculture	Pictures
Ecosystems	Metabolism	Length-weight	Aquaculture profile	Stamps, Coins
Occurrences	Predators	Length-length	Strains	Sounds
Introductions	Ecotoxicology	Length-frequencies	Genetics	Ciguatera
Stocks	Reproduction	Morphometrics	Allele frequencies	Speed
Ecology	Maturity	Morphology	Heritability	Swim. type
Diet	Spawning	Larvae	Diseases	Gill area
Food items	Fecundity	Larval dynamics	Processing	Otoliths
Food consumption	Eggs	Recruitment	Mass conversion	Brains
Ration	Egg development	Abundance	Vision	

Tools

Bio-Quiz | E-book | Field guide | Identification keys | Length-frequency wizard | Life-history tool | Point map | Classification Tree | Catch-MSY |

Special reports

Check for Aquarium maintenance | Check for Species Fact Sheets | Check for Aquaculture Fact Sheets

Download XML

Summary page | Point data | Common names | Photos

Internet sources

Alien/Invasive Species database | BHL | Cloffa | Websites from users | Check FishWatcher | CISTI | Catalog of Fishes (gen., sp.) | DiscoverLife | ECOTOX | Faunafri | Fishtrace | GenBank(genome, nucleotide) | GOBASE | Google Books | Google Scholar | Google | IGFA World Record | iSpecies | National databases | Public aquariums | PubMed | Scirus | SeaLifeBase | Tree of Life | uBio | Wikipedia(Go, Search) | World Records Freshwater Fishing | Zoological Record

Estimates of some properties based on models

Phylogenetic diversity index (Ref. 82805): $PD_{50} = 0.5000$ [Uniqueness, from 0.5 = low to 2.0 = high].

Bayesian length-weight: a=0.00708 (0.00592 - 0.00846), b=3.00 (2.95 - 3.05), based on LWR estimates for this species (Ref. 93245).

Trophic Level (Ref. 69278): 3.8 ±0.4 se; Based on diet studies.

Resilience (Ref. 69278): Medium, minimum population doubling time 1.4 - 4.4 years (K=0.06-0.19; tm=2; Fec > 10,000).

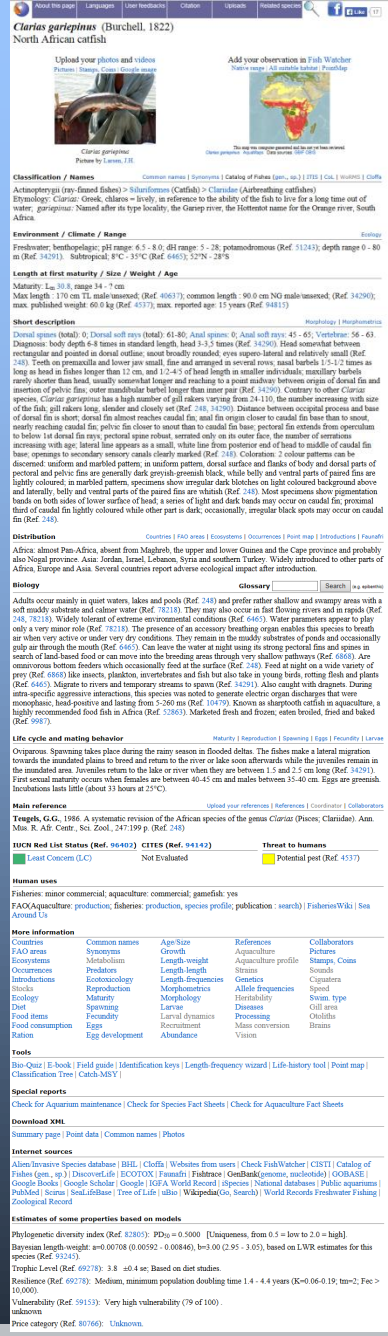
Vulnerability (Ref. 59153): Very high vulnerability (79 of 100) .
unknown

Price category (Ref. 80766): Unknown.

2. FishBase

2.2 Species Summary Page

- One of the most important pages in FishBase.
- Standardized layout.
- Portal to all available information on a species in FishBase.
- Accessible from Search Page, but also from ecosystem and country lists,…



Clarias gariepinus (Burchell, 1822)
North African catfish

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Clarias gariepinus
Picture by Larsen, J.H.

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Short description

Dorsal spines (total): 0; Dorsal soft rays (total): 61-80; Anal spines: 0; Anal soft rays: 45 - 65; Vertebrae: 56 - 63. Diagnosis: body depth 6-8 times in standard length, head 3-3,5 times (Ref. 34290). Head somewhat between rectangular and pointed in dorsal outline; snout broadly rounded; eyes supero-lateral and relatively small (Ref. 248). Teeth on premaxilla and lower jaw small, fine and arranged in several rows; nasal barbels 1/3-1/2 times as long as head in fishes longer than 12 cm, and 1/2-4/5 of head length in smaller individuals; maxillary barbels rarely shorter than head, usually somewhat longer and reaching to a point midway between origin of dorsal fin and insertion of pelvic fins; outer mandibular barbel longer than inner pair (Ref. 34290). Contrary to other *Clarias* species, *Clarias gariepinus* has a high number of gill rakers varying from 24-110, the number increasing with size of the fish; gill rakers long, slender and closely set (Ref. 248, 34290). Distance between occipital process and base of dorsal fin is short; dorsal fin almost reaches caudal fin; anal fin origin closer to caudal fin base than to snout, nearly reaching caudal fin; pelvic fin closer to snout than to caudal fin base; pectoral fin extends from operculum to below 1st dorsal fin rays; pectoral spine robust, serrated only on its outer face, the number of serrations increasing with age; lateral line appears as a small, white line from posterior end of head to middle of caudal fin base; openings to secondary sensory canals clearly marked (Ref. 248). Coloration: 2 colour patterns can be discerned: uniform and marbled pattern; in uniform pattern, dorsal surface and flanks of body and dorsal parts of pectoral and pelvic fins are generally dark greyish-greenish black, while belly and ventral parts of paired fins are lightly coloured; in marbled pattern, specimens show irregular dark blotches on light coloured background above and laterally; belly and ventral parts of the paired fins are whitish (Ref. 248). Most specimens show pigmentation bands on both sides of lower surface of head; a series of light and dark bands may occur on caudal fin; proximal third of caudal fin lightly coloured while other part is dark; occasionally, irregular black spots may occur on caudal fin (Ref. 248).

Distribution

Africa: almost Pan-Africa, absent from Maghreb, the upper and lower Guinea and the Cape province and probably also Nograd province. Asia: Jordan, Israel, Lebanon, Syria and southern Turkey. Widely introduced to other parts of Africa, Europe and Asia. Several countries report adverse ecological impact after introduction.

Biology

Glossary

Adults occur mainly in quiet waters, lakes and pools (Ref. 248) and prefer rather shallow and swampy areas with a soft muddy substrate and calmer water (Ref. 78218). They may also occur in fast flowing rivers and in rapids (Ref. 248, 78218). Widely tolerant of extreme environmental conditions (Ref. 6465). Water parameters appear to play only a very minor role (Ref. 78218). The presence of an accessory breathing organ enables this species to breath air when very active or under very dry conditions. They remain in the muddy substrates of ponds and occasionally gulp air through the mouth (Ref. 6465). Can leave the water at night using its strong pectoral fins and spines in search of land-based food or can move into the breeding areas through very shallow pathways (Ref. 6868). Are omnivorous bottom feeders which occasionally feed at the surface (Ref. 248). Feed at night on a wide variety of prey (Ref. 6868) like insects, plankton, invertebrates and fish but also take in young birds, rotting flesh and plants (Ref. 6465). Migrate to rivers and temporary streams to spawn (Ref. 34291). Also caught with dragnets. During intra-specific aggressive interactions, this species was noted to generate electric organ discharges that were monophasic, head-positive and lasting from 5-260 ms (Ref. 10479). Known as sharptooth catfish in aquaculture, a highly recommended food fish in Africa (Ref. 32863). Marketed fresh and frozen; eaten broiled, fried and baked (Ref. 9987).

Life cycle and mating behavior

Oviparous. Spawning takes place during the rainy season in flooded deltas. The fishes make a lateral migration towards the inundated plains to breed and return to the river or lake soon afterwards while the juveniles remain in the inundated area. Juveniles return to the lake or river when they are between 1.5 and 2.5 cm long (Ref. 34291). First sexual maturity occurs when females are between 40-45 cm and males between 35-40 cm. Eggs are greenish. Incubations lasts little (about 33 hours at 25°C).

Main reference

Teugels, G.G., 1986. A systematic revision of the African species of the genus *Clarias* (Pisces; Clariidae). Ann. Mus. R. Afr. Centr., Sci. Zool., 247:199 p. (Ref. 248)

IUCN Red List Status (Ref. 96402) Least Concern (LC)
CITES (Ref. 94142) Not Evaluated
Threat to humans Potential pest (Ref. 4537)

Human uses

Fisheries: minor commercial; aquaculture: commercial; gamefish: yes
FAO(Aquaculture: production; fisheries: production, species profile; publication : search) | FishSpeciesWiki | Sea Around Us

More information

Countries	Common names	Age/Size	References	Collaborators
FAO areas	Synonyms	Growth	Aquaculture	Pictures
Ecosystems	Metabolism	Length-weight	Aquaculture profile	Stamps, Coins
Occurrences	Predators	Length-length	Strains	Sounds
Introductions	Ecotoxicology	Length-frequencies	Genetics	Ciguatera
Stocks	Reproduction	Morphometrics	Allele frequencies	Speed
Ecology	Maturity	Morphology	Heritability	Swim. type
Diet	Spawning	Larvae	Diseases	Gill area
Food items	Fecundity	Larval dynamics	Processing	Otoliths
Food consumption	Eggs	Recruitment	Mass conversion	Brains
Ration	Egg development	Abundance	Vision	

Tools

Bio-Quiz | E-book | Field guide | Identification keys | Length-frequency wizard | Life-history tool | Point map | Classification Tree | Catch-MSY |

Special reports

Check for Aquarium maintenance | Check for Species Fact Sheets | Check for Aquaculture Fact Sheets

Download XML

Summary page | Point data | Common names | Photos

Internet sources

Aliens/Invasive Species database | BHL | Cloffa | Websites from users | Check FishWatcher | CISTI | Catalog of Fishes (gen., sp.) | DiscoverLife | ECOTOX | Faunafri | Fishtrace | GenBank(genome, nucleotide) | GOBASE | Google Books | Google Scholar | Google | IGFA World Record | iSpecies | National databases | Public aquariums | PubMed | Scirus | SeaLifeBase | Tree of Life | uBio | Wikipedia(Go, Search) | World Records Freshwater Fishing | Zoological Record

Estimates of some properties based on models

Phylogenetic diversity index (Ref. 82805): PD_{50} = 0.5000 [Uniqueness, from 0.5 = low to 2.0 = high].
Bayesian length-weight: a=0.00708 (0.00592 - 0.00846), b=3.00 (2.95 - 3.05), based on LWR estimates for this species (Ref. 93245).
Trophic Level (Ref. 69278): 3.8 ±0.4 se; Based on diet studies.
Resilience (Ref. 69278): Medium, minimum population doubling time 1.4 - 4.4 years (K=0.06-0.19; tm=2; Fec > 10,000).
Vulnerability (Ref. 59153): Very high vulnerability (79 of 100) .
unknown
Price category (Ref. 80766): Unknown.

2. FishBase

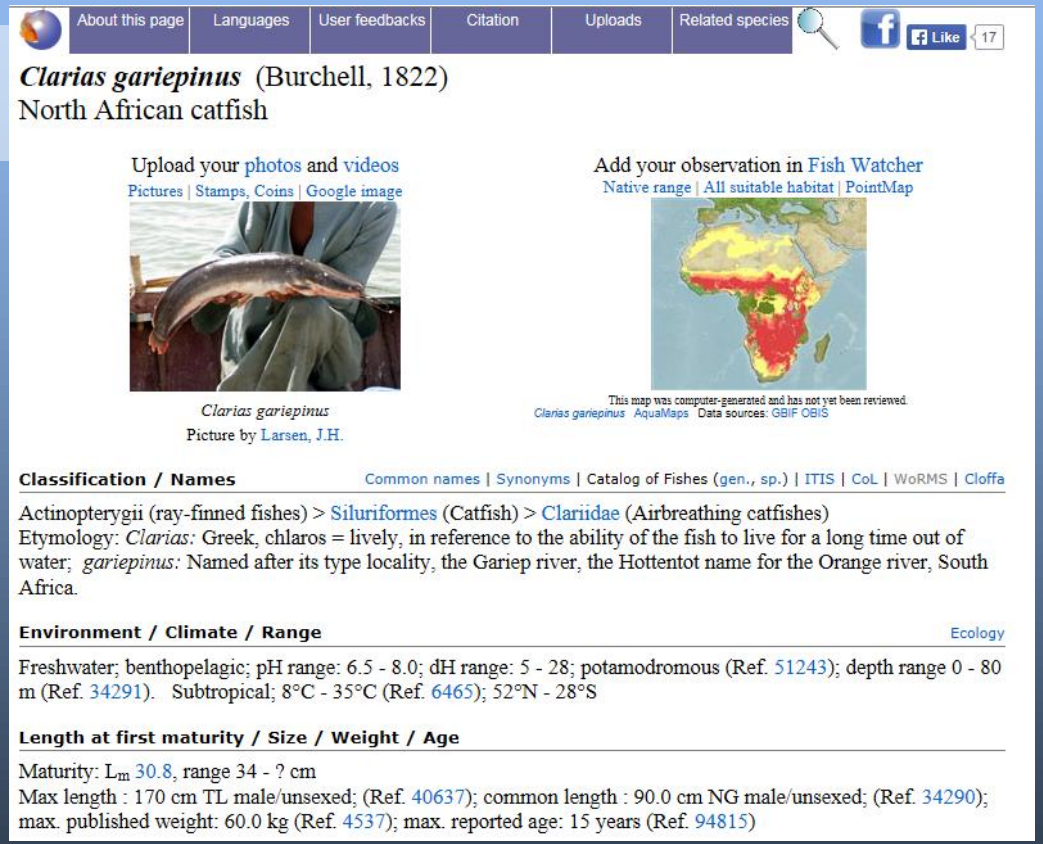
2.2 Species Summary Page

Valid name and common name

Photo/figure + Aquamap

Taxonomic information

Ecological information



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Clarias gariepinus (Burchell, 1822)
North African catfish

Upload your photos and videos
Pictures | Stamps, Coins | Google image

Clarias gariepinus
Picture by Larsen, J.H.

Add your observation in Fish Watcher
Native range | All suitable habitat | PointMap

This map was computer-generated and has not yet been reviewed.
Clarias gariepinus AquaMaps Data sources: GBIF OBIS

Classification / Names Common names | Synonyms | Catalog of Fishes (gen., sp.) | ITIS | CoL | WoRMS | Cloffa

Actinopterygii (ray-finned fishes) > Siluriformes (Catfish) > Clariidae (Airbreathing catfishes)
Etymology: *Clarias:* Greek, chlaros = lively, in reference to the ability of the fish to live for a long time out of water; *gariepinus:* Named after its type locality, the Gariep river, the Hottentot name for the Orange river, South Africa.

Environment / Climate / Range Ecology

Freshwater; benthopelagic; pH range: 6.5 - 8.0; dH range: 5 - 28; potamodromous (Ref. 51243); depth range 0 - 80 m (Ref. 34291). Subtropical; 8°C - 35°C (Ref. 6465); 52°N - 28°S

Length at first maturity / Size / Weight / Age

Maturity: L_m 30.8, range 34 - ? cm
Max length : 170 cm TL male/unsexed; (Ref. 40637); common length : 90.0 cm NG male/unsexed; (Ref. 34290); max. published weight: 60.0 kg (Ref. 4537); max. reported age: 15 years (Ref. 94815)

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2.2 Species Summary Page

Diagnosis

General distribution

Short description Morphology | Morphometrics

Dorsal spines (total): 0; Dorsal soft rays (total): 61-80; Anal spines: 0; Anal soft rays: 45 - 65; Vertebrae: 56 - 63. Diagnosis: body depth 6-8 times in standard length, head 3-3,5 times (Ref. 34290). Head somewhat between rectangular and pointed in dorsal outline; snout broadly rounded; eyes supero-lateral and relatively small (Ref. 248). Teeth on premaxilla and lower jaw small, fine and arranged in several rows; nasal barbels 1/5-1/2 times as long as head in fishes longer than 12 cm, and 1/2-4/5 of head length in smaller individuals; maxillary barbels rarely shorter than head, usually somewhat longer and reaching to a point midway between origin of dorsal fin and insertion of pelvic fins; outer mandibular barbel longer than inner pair (Ref. 34290). Contrary to other *Clarias* species, *Clarias gariepinus* has a high number of gill rakers varying from 24-110, the number increasing with size of the fish; gill rakers long, slender and closely set (Ref. 248, 34290). Distance between occipital process and base of dorsal fin is short; dorsal fin almost reaches caudal fin; anal fin origin closer to caudal fin base than to snout, nearly reaching caudal fin; pelvic fin closer to snout than to caudal fin base; pectoral fin extends from operculum to below 1st dorsal fin rays; pectoral spine robust, serrated only on its outer face, the number of serrations increasing with age; lateral line appears as a small, white line from posterior end of head to middle of caudal fin base; openings to secondary sensory canals clearly marked (Ref. 248). Coloration: 2 colour patterns can be discerned: uniform and marbled pattern; in uniform pattern, dorsal surface and flanks of body and dorsal parts of pectoral and pelvic fins are generally dark greyish-greenish black, while belly and ventral parts of paired fins are lightly coloured; in marbled pattern, specimens show irregular dark blotches on light coloured background above and laterally, belly and ventral parts of the paired fins are whitish (Ref. 248). Most specimens show pigmentation bands on both sides of lower surface of head; a series of light and dark bands may occur on caudal fin; proximal third of caudal fin lightly coloured while other part is dark; occasionally, irregular black spots may occur on caudal fin (Ref. 248).

Distribution Countries | FAO areas | Ecosystems | Occurrences | Point map | Introductions | Faunafri

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2.2 Species Summary Page

General biology

Reproduction

Main reference

Conservation and treats

Human uses

Biology Glossary [ ] Search (e.g. epibenthic)

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Life cycle and mating behavior Maturity | Reproduction | Spawning | Eggs | Fecundity | Larvae

Oviparous. Spawning takes place during the rainy season in flooded deltas. The fishes make a lateral migration towards the inundated plains to breed and return to the river or lake soon afterwards while the juveniles remain in the inundated area. Juveniles return to the lake or river when they are between 1.5 and 2.5 cm long (Ref. 34291). First sexual maturity occurs when females are between 40-45 cm and males between 35-40 cm. Eggs are greenish. Incubations lasts little (about 33 hours at 25°C).

Main reference Upload your references | References | Coordinator | Collaborators

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IUCN Red List Status (Ref. 96402)	CITES (Ref. 94142)	Threat to humans
Least Concern (LC)	Not Evaluated	Potential pest (Ref. 4537)

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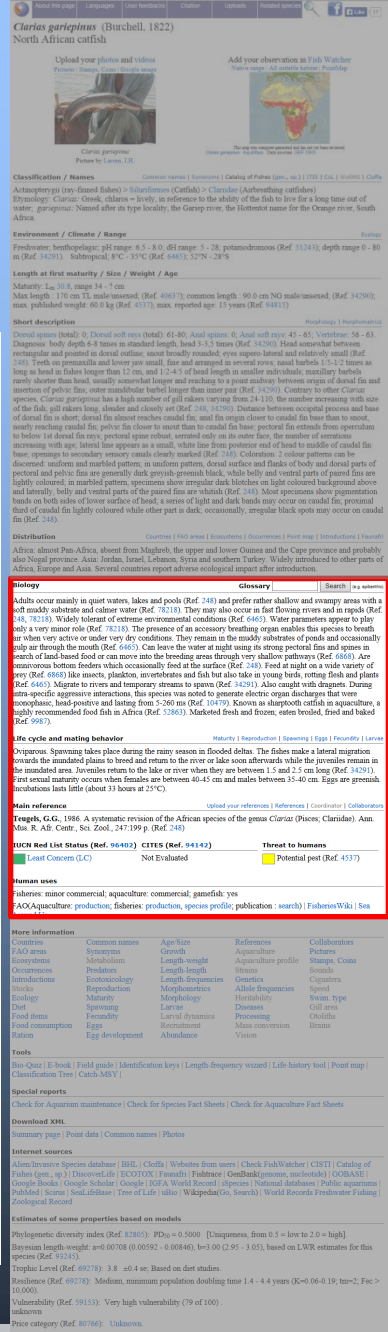

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2.2 Species Summary Page

Detailed information

Tools

Other websites

More information

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2. FishBase

2.2 Species Summary Page

Parameter estimations

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unknown

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