



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.

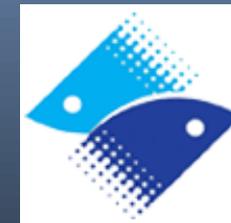
1. Introduction

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)



Universidade Federal de Sergipe
(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

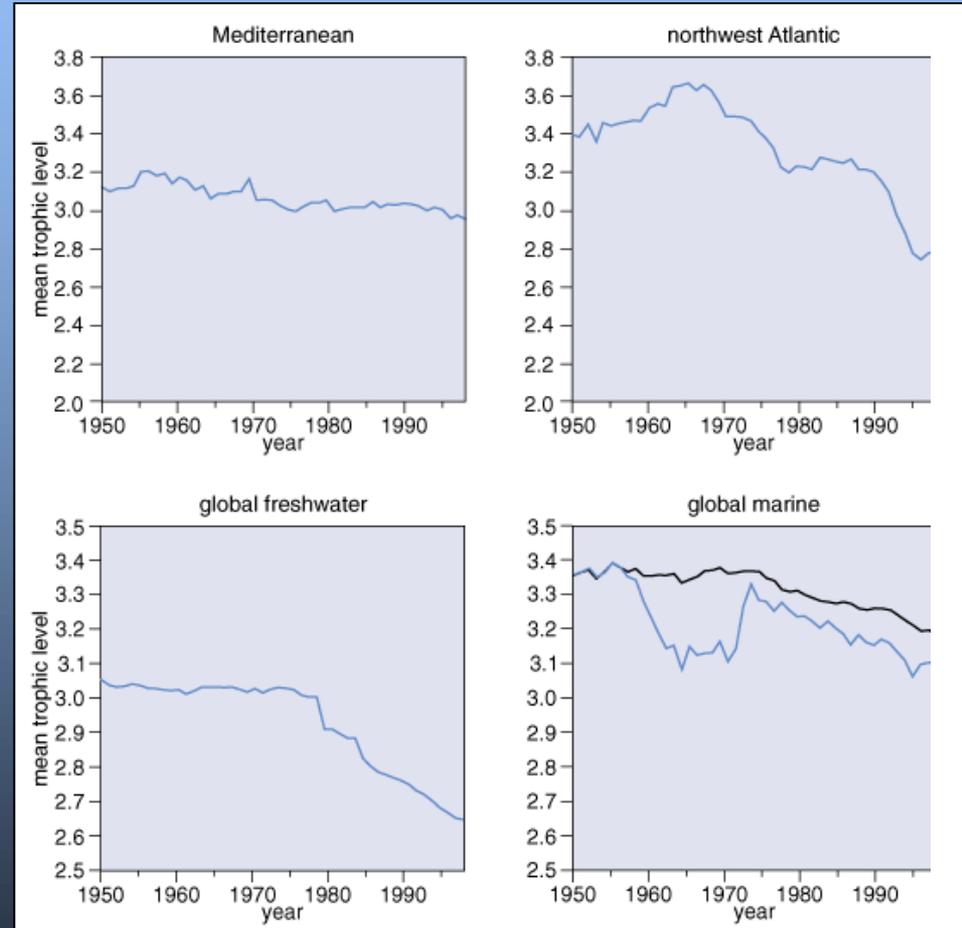
- Data accumulated over years allows new scientific studies (e.g. Pauly's "Fishing down food webs").

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.

label (04-2012)	RMCA nr.	end nr.	quantity	collector	locality	country on label	species name	author(s)	family	coordinates (lon, coordinaat N/S, coordinaat E/W)	identif.
P 73029.0240	73029.0262	23	Thys van den Audenaerde & Opendenbosch	Niala, petits ruisseaux forestiers	Cameroon	Aphyosemion splendopleure	(Bruning, 1929)	Aplocheilidae	04°03'N-09°46'E	04°03' N 09°46' E	Radda A
P 73029.0263	73029.0279	17	Thys van den Audenaerde & Opendenbosch	Tondé, riv. Sandjé, Wouri bekken	Cameroon	Procatopus similis	Ahl, 1927	Poeciliidae	04°13'N-09°50'E	04°13' N 09°50' E	Radda A
P 73029.0280	73029.0327	48	Thys van den Audenaerde & Opendenbosch	Kondi, petits ruisseaux	Cameroon	Procatopus similis	Ahl, 1927	Poeciliidae	04°03'N-09°45'E	04°03' N 09°45' E	Radda A
P 73029.0328	73029.0339	12	Thys van den Audenaerde & Opendenbosch	route Douala-Yabassi	Cameroon	Procatopus similis	Ahl, 1927	Poeciliidae	04°03'N-09°42'E	04°03' N 09°42' E	Radda A
P 73029.0340	73029.0341	2	Thys van den Audenaerde & Opendenbosch	Niala, petits ruisseaux forestiers	Cameroon	Procatopus similis	Ahl, 1927	Poeciliidae	04°03'N-09°46'E	04°03' N 09°46' E	Radda A
P 73029.0342		1	Thys van den Audenaerde D.	Mamfé, riv. Cross	Cameroon	Polypterus teugelsi	Britz, 2004	Polypteridae	05°46'N-09°17'E	05°46' N 09°17' E	Britz R. 2
P 73029.0342		1	Thys van den Audenaerde D.	Mamfé, riv. Cross	Cameroon	Polypterus retropinnis	Vaillant, 1886	Polypteridae	05°46'N-09°17'E	05°46' N 09°17' E	Thys var
P 73029.0343		1	Thys van den Audenaerde D.	Doko, riv. Sanaga alt:500-510m	Cameroon	Campylomormyrus phantasticus	(Pellegrin, 192)	Mormyridae	04°22'N-11°44'E	04°22' N 11°44' E	Thys var
P 73029.0344	73029.0345	2	Thys van den Audenaerde D.	Nachtigal, riv. Sanaga alt:437-460m	Cameroon	Campylomormyrus phantasticus	(Pellegrin, 192)	Mormyridae	04°21'N-11°38'E	04°21' N 11°38' E	Thys var
P 73029.0346		1	Thys van den Audenaerde D.	Nachtigal, riv. Sanaga alt:437-460m	Cameroon	Campylomormyrus phantasticus	(Pellegrin, 192)	Mormyridae	04°21'N-11°38'E	04°21' N 11°38' E	Thys var
P 73029.0347	73029.0348	2	Thys van den Audenaerde D.	Belabo, riv. Sanaga alt:590-600m	Cameroon	Campylomormyrus phantasticus	(Pellegrin, 192)	Mormyridae	04°55'N-13°18'E	04°55' N 13°18' E	Thys var
P 73029.0349		1	Thys van den Audenaerde D.	Belabo, riv. Sanaga alt:590-600m	Cameroon	Campylomormyrus phantasticus	(Pellegrin, 192)	Mormyridae	04°55'N-13°18'E	04°55' N 13°18' E	Thys var
P 73029.0350		1	Thys van den Audenaerde D.	Nachtigal, riv. Sanaga alt:437-460m	Cameroon	Campylomormyrus phantasticus	(Pellegrin, 192)	Mormyridae	04°21'N-11°38'E	04°21' N 11°38' E	Thys var
P 73029.0351	73029.0353	3	Thys van den Audenaerde D.	Mamfé, riv. Cross	Cameroon	Mormyrus tapirus	Pappenheim, 1	Mormyridae	05°46'N-09°17'E	05°46' N 09°17' E	Leveque
P 73029.0354		1	Thys van den Audenaerde D.	Mamfé, riv. Cross	Cameroon	Mormyrus tapirus	Pappenheim, 1	Mormyridae	05°46'N-09°17'E	05°46' N 09°17' E	Leveque
P 73029.0355		1	Thys van den Audenaerde D.	Mamfé, riv. Cross	Cameroon	Mormyrus macrophthalmus	Gunther, 1866	Mormyridae	05°46'N-09°17'E	05°46' N 09°17' E	Thys var
P 73029.0356		1	Thys van den Audenaerde D.	Ebogo, riv. Nyong	Cameroon	Mormyrus tapirus	Pappenheim, 1	Mormyridae	03°23'N-11°28'E	03°23' N 11°28' E	Thys var
P 73029.0357	73029.0359	3	Thys van den Audenaerde D.	Ebogo, riv. Nyong	Cameroon	Mormyrus tapirus	Pappenheim, 1	Mormyridae	03°23'N-11°28'E	03°23' N 11°28' E	Thys var
P 73029.0360	73029.0364	5	Thys van den Audenaerde D.	Ebogo, riv. Nyong	Cameroon	Mormyrus tapirus	Pappenheim, 1	Mormyridae	03°23'N-11°28'E	03°23' N 11°28' E	Thys var
P 73029.0365		1	Thys van den Audenaerde D.	Ebogo, riv. Nyong	Cameroon	Mormyrus tapirus	Pappenheim, 1	Mormyridae	03°23'N-11°28'E	03°23' N 11°28' E	Thys var
P 73029.0366		1	Thys van den Audenaerde D.	Ebogo, riv. Nyong	Cameroon	Mormyrus tapirus	Pappenheim, 1	Mormyridae	03°23'N-11°28'E	03°23' N 11°28' E	Thys var
P 73029.0367		1	Thys van den Audenaerde D.	Ebogo, riv. Nyong	Cameroon	Mormyrus tapirus	Pappenheim, 1	Mormyridae	03°23'N-11°28'E	03°23' N 11°28' E	Thys var
P 73029.0368	73029.0369	2	Thys van den Audenaerde D.	Ebogo, riv. Nyong	Cameroon	Mormyrus tapirus	Pappenheim, 1	Mormyridae	03°23'N-11°28'E	03°23' N 11°28' E	Thys var
P 73029.0370	73029.0373	4	Thys van den Audenaerde D.	Ebogo, riv. Nyong	Cameroon	Mormyrus tapirus	Pappenheim, 1	Mormyridae	03°23'N-11°28'E	03°23' N 11°28' E	Thys var
P 73029.0374	73029.0377	4	Thys van den Audenaerde D.	Nachtigal, riv. Sanaga alt:437-460m	Cameroon	Mormyrus tapirus	Pappenheim, 1	Mormyridae	04°21'N-11°38'E	04°21' N 11°38' E	Thys var
P 73029.0378		1	Thys van den Audenaerde D.	Nachtigal, riv. Sanaga alt:437-460m	Cameroon	Mormyrus tapirus	Pappenheim, 1	Mormyridae	04°21'N-11°38'E	04°21' N 11°38' E	Thys var
P 73029.0379		1	Thys van den Audenaerde D.	Nachtigal, riv. Sanaga alt:437-460m	Cameroon	Mormyrus tapirus	Pappenheim, 1	Mormyridae	04°21'N-11°38'E	04°21' N 11°38' E	Thys var
P 73029.0380		1	Thys van den Audenaerde D.	Yabassi, riv. Wouri	Cameroon	Mormyrus tapirus	Pappenheim, 1	Mormyridae	04°27'N-09°58'E	04°27' N 09°58' E	Thys var
P 73029.0381	73029.0383	3	Thys van den Audenaerde D.	Yabassi, riv. Wouri	Cameroon	Mormyrus tapirus	Pappenheim, 1	Mormyridae	04°27'N-09°58'E	04°27' N 09°58' E	Thys var
P 73029.0384	73029.0388	5	Thys van den Audenaerde D.	Yabassi, riv. Wouri	Cameroon	Mormyrus tapirus	Pappenheim, 1	Mormyridae	04°27'N-09°58'E	04°27' N 09°58' E	Thys var
P 73029.0385	73029.0390	2	Thys van den Audenaerde D.	Yabassi, riv. Wouri	Cameroon	Mormyrus tapirus	Pappenheim, 1	Mormyridae	04°27'N-09°58'E	04°27' N 09°58' E	Thys var
P 73029.0391	73029.0396	6	Thys van den Audenaerde D.	Yabassi, riv. Wouri	Cameroon	Mormyrus tapirus	Pappenheim, 1	Mormyridae	04°27'N-09°58'E	04°27' N 09°58' E	Thys var
P 73029.0397	73029.0399	3	Thys van den Audenaerde D.	Doko, riv. Sanaga alt:500-510m	Cameroon	Mormyrus tapirus	Pappenheim, 1	Mormyridae	04°22'N-11°44'E	04°22' N 11°44' E	Thys var
P 73029.0400	73029.0401	2	Thys van den Audenaerde D.	Doko, riv. Sanaga alt:500-510m	Cameroon	Mormyrus tapirus	Pappenheim, 1	Mormyridae	04°22'N-11°44'E	04°22' N 11°44' E	Thys var
P 73029.0402	73029.0411	30	Thys van den Audenaerde D.	Belabo, riv. Sanaga alt:590-600m	Cameroon	Mormyrus tapirus	Pappenheim, 1	Mormyridae	04°55'N-13°18'E	04°55' N 13°18' E	Thys var
P 73029.0412		1	Thys van den Audenaerde D.	Tondé, riv. Sandjé, Wouri bekken	Cameroon	Gnathonemus petersii	(Günther, 1862)	Mormyridae	04°13'N-09°50'E	04°13' N 09°50' E	Thys var
P 73029.0413	73029.0415	3	Thys van den Audenaerde D.	Tondé, riv. Sandjé, Wouri bekken	Cameroon	Gnathonemus petersii	(Günther, 1862)	Mormyridae	04°13'N-09°50'E	04°13' N 09°50' E	Thys var
P 73029.0416	73029.0419	4	Thys van den Audenaerde D.	Tondé, riv. Sandjé, Wouri bekken	Cameroon	Gnathonemus petersii	(Günther, 1862)	Mormyridae	04°13'N-09°50'E	04°13' N 09°50' E	Thys var

1. Introduction

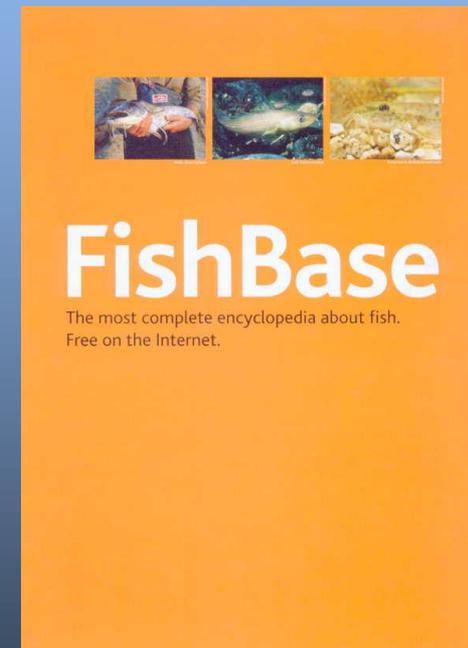
1.3 Contribution of MRAC to FishBase

- 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

Mirrors : [fishbase.org](#) | [fishbase.us](#) | [fishbase.de](#) | [fishbase.fr](#) | [fishbase.es](#) | [fishbase.tw](#) | [fishbase.cn](#) | [fishbase.sa](#) | [fishbase.ca](#)
English | [Español](#) | [Português \(Br. P.\)](#) | [Français](#) | [Deutsch](#) | [Italiano](#) | [Nederlands](#) | [简体中文](#) | [繁體中文](#) | [日本語](#) | [More...](#)

 **FishBase** (33000 Species, 305200 Common names, 55900 Pictures, 51700 References, 2180 Collaborators, 700000 Visits/Month)
ver. (02/2015)

Mobile options & donations   **FC-UBC**

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Common Name

is (e.g. rainbow trout)

ABCDEFGHIJKLMNOPQRSTUVWXYZ
中文 العربية Русский 日本語 हिन्दी ελληνικά [More scripts...](#)

Scientific Name

[Advanced Match](#)

Genus is (e.g. Rhinodon)

Species is (e.g. typos) Random Species

Genus + Species Sp. ID

ABCDEFGHIJKLMNOPQRSTUVWXYZ

[Why name assessments may be different](#) between FishBase and the independent [Catalog of Fishes \(Eschmeyer, 2014\)](#)

Glossary

(e.g. oophagy)

ABCDEFGHIJKLMNOPQRSTUVWXYZ

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 All fishes Freshwater Marine Introduced Endemic Threatened Dangerous Reef-associated Pelagic Deep-water

Uses Commercial Aquaculture Aquarium trade Invasiveness Game fishes FAO aquaculture FAO catches ICES catch Sea Around Us catch Fish Loss

Tools Identification by pictures Identification keys Field guide Occurrences References Missing data Missing photos Ecopath data Species Ecology Matrix Checklist (extended)

Miscellaneous Country info FAO profile ReefBase profile Treaties & Conv. Collaborators Fish stamps and coins Common names Public aquariums MPA database 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 Point data Ecosystem info Resilience of fishes Trophic pyramids Species Ecology Matrix Deep-water Ecopath parameters Identification by pictures 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

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

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

Tools

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

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

References

Author (e.g. Randall)

ABCDEFGHIJKLMNOPQRSTUVWXYZ

Year

Title (e.g. Gilbert Islands)

Source

RefNo (e.g. 32 or 32, 123, 2700)

[Fish Journals](#) [ICES papers](#)

List of publications on fishes in [Zootaxa](#).

You can search references also in the independent [Catalog of Fishes](#).

Associated Journal

Publish in our journal partner [Acta Ichthyologica et Piscatoria](#) the results of your primary research on fishes about growth, weight-length relationships, reproduction (maturity, fecundity, spawning), food and diet composition, introductions and range extensions for faster subsequent entry in (2011 impact factor: 0.547).

Indexed Journal

[Cybium](#) (publisher: SFI, Société Française d'Ichtyologie)

For journal editors: Would you wish that your journal were indexed in FishBase, please contact our [librarian](#).

References Citing FishBase

How to cite FishBase
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
Froese, R. and D. Pauly, Editors. 2015. FishBase. World's Wide Web electronic publication. www.fishbase.org, version (02/2015).

Disclaimer

FishBase present information on fishes as correctly as possible. However, we can not exclude errors, and neither we nor our partners can be held responsible for any damage that may arise from these.

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Note: FishBase is also available on CD-ROM, with detailed information on population dynamics, genetics, morphology, trophic ecology, physiology, ecotoxicology, reproduction, etc. See the [FishBase homepage](#) or the [FishBase book](#) for more information. FishBase was assembled with the help of many [partners](#) and with the support of the [European Commission](#) and other [sponsors](#). Contact us if you want to provide [pictures](#), [data](#) or [reprints](#).

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For web site technical issues only : [WebMaster](#)

For comments : [Comments](#) & [Corrections](#)

FishBase mirror: [Stockholm, Sweden](#)

Page last modified on September 2012

update ver. 02/2015



2. FishBase

2.1 Search Page

Mirrors : fishbase.org | fishbase.us | fishbase.de | fishbase.fr | fishbase.se | fishbase.tw | fishbase.cn | fishbase.ca

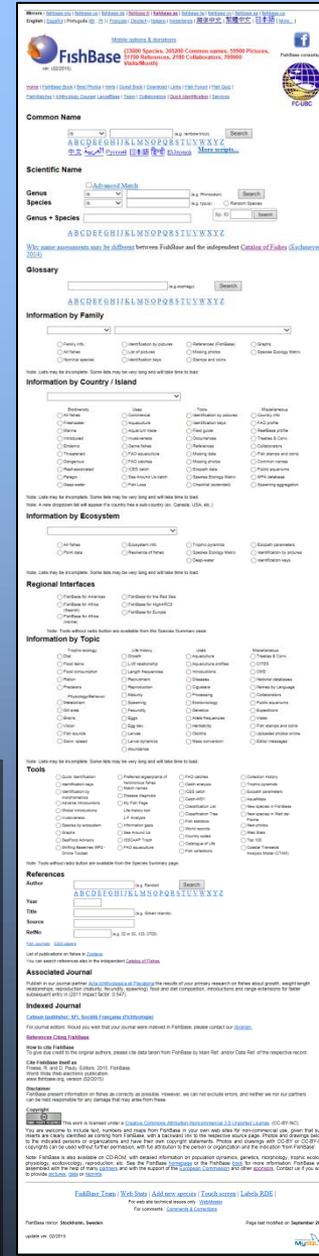
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FishBase
ver. (10/2016)

(33400 Species, 318900 Common names, 57800 Pictures, 53300 References, 2260 Collaborators, 700000 Visits/Month)

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The screenshot shows the FishBase search page with various filters and search options. It includes sections for Common Name, Scientific Name, Genus, Species, Genus + Species, Information by Family, Information by Country/Island, Information by Ecosystem, Regional Interfaces, Information by Topic, Tools, References, and Indexed Journal. The page is designed for users to search for fish species and access related information.

- 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



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2.1 Search Page

Mirrors : fishbase.org | fishbase.us | fishbase.de | fishbase.fr | fishbase.se | fishbase.tw | fishbase.cn | fishbase.ca

English | [Español](#) | [Português \(Br, Pt\)](#) | [Français](#) | [Deutsch](#) | [Italiano](#) | [Nederlands](#) | [简体中文](#) | [繁體中文](#) | [日本語](#) [[More...](#)]



FishBase
ver. (10/2016)

(33400 Species, 318900 Common names, 57800 Pictures, 53300 References, 2260 Collaborators, 700000 Visits/Month)

[Home](#) | [FishBase Book](#) | [Best Photos](#) | [Hints](#) | [Guest Book](#) | [Download](#) | [Links](#) | [Fish Forum](#) | [Fish Quiz](#) | [FishWatcher](#) | [Ichthyology Course](#) | [LarvalBase](#) | [Team](#) | [Collaborators](#) | [Quick Identification](#) | [Services](#)

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



The screenshot shows the FishBase search page with various search filters and options. At the top, there are navigation links for different languages and mirrors. Below that, there are search fields for Common Name and Scientific Name, along with a search button. The page also features a 'Why name assessments vary' section, a 'Glossary' section, and several 'Information by' sections: Family, Country/Island, Ecosystem, Regional Interfaces, and Topic. Each section has a list of checkboxes to select specific filters. At the bottom, there are sections for 'References' and 'Indexed Journal', along with a 'References Cited/Hidden' section. The page footer includes the FishBase logo, version information, and contact details.

2. FishBase

2.1 Search Page

1

Common Name

is (e.g. rainbow trout)

[A](#)[B](#)[C](#)[D](#)[E](#)[F](#)[G](#)[H](#)[I](#)[J](#)[K](#)[L](#)[M](#)[N](#)[O](#)[P](#)[Q](#)[R](#)[S](#)[T](#)[U](#)[V](#)[W](#)[X](#)[Y](#)[Z](#)

[中文](#) [العربية](#) [Русский](#) [日本語](#) [हिन्दी](#) [Ελληνικά](#) [More scripts...](#)

Scientific Name

[Advanced Match](#)

Genus is (e.g. Rhinocodon)

Species is (e.g. typus) Random Species

Genus + Species Sp. ID

[A](#)[B](#)[C](#)[D](#)[E](#)[F](#)[G](#)[H](#)[I](#)[J](#)[K](#)[L](#)[M](#)[N](#)[O](#)[P](#)[Q](#)[R](#)[S](#)[T](#)[U](#)[V](#)[W](#)[X](#)[Y](#)[Z](#)

[Why name assessments may be different](#) between FishBase and the independent [Catalog of Fishes \(Eschmeyer, 2014\)](#)

Glossary

(e.g. oophagy)

[A](#)[B](#)[C](#)[D](#)[E](#)[F](#)[G](#)[H](#)[I](#)[J](#)[K](#)[L](#)[M](#)[N](#)[O](#)[P](#)[Q](#)[R](#)[S](#)[T](#)[U](#)[V](#)[W](#)[X](#)[Y](#)[Z](#)

2

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
 All fishes
 Freshwater
 Marine
 Introduced
 Endemic
 Threatened
 Dangerous
 Reef-associated
 Pelagic
 Deep-water

Uses
 Commercial
 Aquaculture
 Aquarium trade
 Game fishes
 FAO aquaculture
 FAO catches
 ICES catch
 Sea Around Us catch
 Fish Loss

Tools
 Identification by pictures
 Identification keys
 Field guide
 Occurrences
 Missing data
 Missing photos
 Ecopath data
 Species Ecology Matrix
 Checklist (extended)

Miscellaneous
 Country info
 FAO profile
 ReefBase profile
 Treaties & Conv.
 Collaborators
 Fish stamps and coins
 Common names
 Public aquariums
 MPA database
 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

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
 Diet
 Food items
 Food consumption
 Ration
 Predators

Physiology/Behavior
 Metabolism
 Gill area
 Brains
 Vision
 Fish sounds
 Swim speed

Life history
 Growth
 L-W relationship
 Length frequencies
 Recruitment
 Reproduction
 Maturity
 Spawning
 Fecundity
 Eggs
 Egg dev.
 Larvae
 Larval dynamics
 Abundance

Uses
 Aquaculture
 Aquaculture profiles
 Introductions
 Diseases
 Ciguatera
 Processing
 Ecotoxicology
 Genetics
 Allele frequencies
 Heritability
 Otoliths
 Mass conversion

Miscellaneous
 Treaties & Conv.
 CITES
 CMS
 National databases
 Names by Language
 Collaborators
 Public aquariums
 Expeditions
 Video
 Fish stamps and coins
 Uploaded photos online
 Editor messages

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

References

Author (e.g. Randall)
[A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

Year

Title (e.g. Gilbert Islands)

Source

RefNo (e.g. 32 or 32, 123, 2700)

[Fish Journals](#) [ICES papers](#)

List of publications on fishes in [Zootaxa](#).

You can search references also in the independent [Catalog of Fishes](#).



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

Teugels, G.G., 1986. A systematic revision of the African species of the genus *Clarias* (Pisces: Clariidae). *Acta Zool. Fenn.* 368: 1-100.

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

The screenshot shows the FishBase search results page for a specific species. It includes various filters such as 'Common Name', 'Scientific Name', 'Genus', 'Species', and 'Genus + Species'. There are also sections for 'Glossary', 'Information by Family', 'Information by Country / Island', 'Information by Ecosystem', 'Regional Interfaces', and 'Information by Topic'. A 'References' section is highlighted with a red box, showing a list of references with columns for Author, Year, Title, Source, and RefNo. The reference number 78218 is circled in red in the original image.



2. FishBase

2.1 Search Page

1

How to cite FishBase

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

Froese, R. and D. Pauly. Editors. 2015. FishBase. World Wide Web electronic publication. www.fishbase.org, version (02/2015).

Disclaimer

FishBase present information on fishes as correctly as possible. However, we can not exclude errors, and neither we nor our partners can be held responsible for any damage that may arise from these.

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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 AquaticLife. Data sources: GBIF 2015

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, chloras = 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_{∞} 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](#) (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 breathe 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 sharpooth 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](#)

Tuegels, 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,...

The screenshot shows the FishBase species summary page for *Clarias gariepinus*. At the top, there are navigation tabs for 'About this page', 'Languages', 'User feedback', 'Citation', 'Updates', 'Feedback', and 'Log out'. Below this is the species name 'Clarias gariepinus (Burchell, 1822)' and 'North African catfish'. There are links to 'Upload your photos and videos' and 'Add your observation in Fish Watcher'. A small image of the fish is shown with a caption 'Clarias gariepinus' and 'Picture by Lorian, 7/8'. Below the image is a 'Classification / Names' section with links for 'Common names', 'Synonyms', 'Catalog of Fishes', 'ITIS', 'CoL', 'WoRMS', and 'Globe'. The 'Etymology' section explains the name: 'Clarias: Greek, *chlarios* = 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 Dutch name for the Orange river, South Africa.' The 'Environment / Climate / Range' section lists 'Freshwater; bathypelagic; pH range: 6.5 - 8.0; dSI range: 5 - 38; potamodromous (Ref. 51243); depth range: 0 - m (Ref. 34291); Subtropical; 8°C - 35°C (Ref. 6463); 32°N - 28°S'. The 'Length at first maturity / Size / Weight / Age' section provides 'Max length: 170 cm TL, male unsexed. (Ref. 40617); common length: 90.0 cm NO male unsexed. (Ref. 34290); max. published weight: 60.0 kg (Ref. 40377); max. reported age: 15 years (Ref. 94413)'. The 'Short description' section contains a detailed morphological and behavioral overview. The 'Distribution' section lists countries and provides a map. The 'Biology' section describes the fish's habitat, feeding habits, and life cycle. The 'Life cycle and mating behavior' section details spawning habits. The 'Main references' section lists key scientific papers. The 'IUCN Red List Status' is 'Least Concern (LC)'. The 'Threat to humans' section is 'Potential pest (Ref. 4337)'. The 'Human uses' section lists 'Fishes: minor commercial; aquaculture: commercial; gamefish: yes'. The 'More information' section includes links for 'Countries', 'FAO areas', 'Ecosystems', 'Occurrences', 'Introductions', 'Stocks', 'Ecology', 'Diet', 'Food items', 'Food consumption', 'Habitat', 'Tools', 'Bio-Quiz', 'E-book', 'Field guide', 'Identification keys', 'Life-length frequency wizard', 'Life-history tool', 'Point map', 'Classification tree', 'Catch-MSY', 'Special reports', 'Download BHL', 'Summary page', 'Point data', 'Common names', 'Photos', 'Internet sources', 'Alien/Invasive Species database', 'BHL', 'Closets', 'Websites from users', 'Check Fish/Watcher', 'CISTI', 'Catalog of Fishes', 'DiscoverLife', 'EcoTox', 'FishBase', 'FishBase', 'GenBank/genomes', 'macrobio', 'GBASE', 'Google Books', 'Google Scholar', 'Google', 'IGFA World Record', 'Ipswich', 'National FishBase', 'Public aquarium', 'PubMed', 'Scirus', 'SeaLifeBase', 'Tree of Life Web Project', 'Wikipedia', 'World Records', 'World Records', 'FishBase', 'Zoological Record'. The 'Estimates of some properties based on models' section includes 'Phylogenetic diversity index (Ref. 82805): PD2 = 0.5000 [Uniqueness, from 0.5 = low to 2.0 = high]', 'Biomass length-weight: w=0.0708 (0.00592 - 0.00846), b=0.28 (0.259 - 3.07), based on LWK estimates for this species (Ref. 93248)', 'Resilience (Ref. 69278): 3.8 ±0.4 se, Based on det. studies.', 'Trophic Level (Ref. 69278): 3.8 ±0.4 se, Based on det. studies.', 'Resilience (Ref. 69278): Medium, minimum population doubling time 1.4 - 4.4 years (K=0.06-0.19, tm=2; Fe=10.000).', 'Vulnerability (Ref. 59153): Very high vulnerability (79 of 100) unknown', and 'Price category (Ref. 80766): Unknown'.



2. FishBase

2.2 Species Summary Page

Valid name and common name

Photo/figure + Aquamap

Taxonomic information

Ecological information

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, chiaros = 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)



Clarias gariepinus (Burchell, 1822)
North African catfish

Upload your photos and videos
[Pictures](#) | [Stamps](#) | [Coins](#) | [Google image](#)

Add your observation in Fish Watcher
[Native range](#) | [All suitable habitat](#) | [PointMap](#)

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, chiaros = 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

Dorsal spine (body): 0. Dorsal soft rays (body): 43-80. Anal spine: 0. Anal soft rays: 45-65. Ventrals: 56-63. Diaphragm: body depth 6-8 times as standard length, head 3-3.5 times (Ref. 54390). Head somewhat between rectangular and pointed in dorsal outline; snout broadly rounded, eyes superolateral and relatively small (Ref. 250). Teeth on premaxilla and lower jaw small, fine and arranged in a several rows; nasal barbels 1.5-1.8 times as long as head in fishes longer than 12 cm, and 1.2-4.5 of head length in smaller individuals; maxillary barbels only shorter than head; usually somewhat longer and reaching to a point outside between origin of dorsal fin and insertion of pelvic fin; outer mandibular barbel longer than inner pair (Ref. 14290). 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 in short dorsal fin almost reaches caudal fin, and fin origin closer to caudal fin base than in most, rarely 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 middle of caudal fin base, opening to secondary sensory canals clearly marked (Ref. 248). Coloration: 2 colour patterns can be discerned: uniform and mottled 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 colored; in mottled pattern, specimens show irregular dark blotches on light colored background above and laterally; belly and ventral parts of 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 highly colored while other part is dark; occasionally, irregular black spots may occur on caudal fin (Ref. 248).

Distribution [Countries](#) | [140 areas](#) | [Ecoregions](#) | [Distributions](#) | [Point map](#) | [Introductions](#) | [Fishes of Africa](#)

Africa: almost Pan-Africa, absent from Maghreb, the upper and lower Guinea and the Cape province and probably also Natal 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](#) | [44 synonyms](#)

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. 78118). They may also occur in fast flowing rivers and in rapids (Ref. 248, 78118). Widely tolerant of extreme environmental conditions (Ref. 6465). Water parameters appear to play only a very minor role (Ref. 78118). The presence of an accessory breathing organ enables this species to breathe air when very active or under very dry conditions. They remain in the muddy substrate of ponds and occasionally gulp air through the mouth (Ref. 6465). Can leave the water at night using its strong pectoral fins and opens in search of food. Inland food can move into the breathing organ through very shallow pathways (Ref. 6465). An omnivorous bottom feeder which occasionally feeds at the surface (Ref. 248). Feed at night on a wide variety of prey (Ref. 6465) like insects, plankton, invertebrates and fish but also take in young birds, prairie dogs and plants (Ref. 6465). Migrate to rivers and temporary streams to spawn (Ref. 248). Also bred in small swamps. During intra-specific aggressive interactions, this species was noted to generate electric organ discharges that were monophasic, head-positive and lasting from 5-200 ms (Ref. 18179). Known as sharp-tooth catfish in aquaculture; highly recommended food fish in Africa (Ref. 13863). Marketed fish and frozen, often breaded, fried and baked (Ref. 998).

Life cycle and mating behavior [History](#) | [Reproduction](#) | [Spawning](#) | [Eggs](#) | [Incubation](#) | [Larvae](#)

Ovipositor: Spawning takes place during the rainy season in flooded delta. 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. Incubation lasts little (about 33 hours at 25°C).

Main references [Upload your references](#) | [References](#) | [Citation](#) | [Collaborators](#)

Tringali, G.C., 1986. A systematic revision of the African species of the genus *Clarias* (Pisces: Clariidae). *Amer. Mus. Nat. Hist. Contr. Ser. Zool.*, 247:199 p. (Ref. 248)

IUCN Red List Status (Ref. 96492) **CITES** (ref. 94142) [Threat to humans](#)

Least Concern (LC) Not Evaluated Potential poor (Ref. 4537)

Human uses

Fisheries: minor commercial; aquaculture: commercial; gamefish; yes
 FAO/Aquaculture: production; fisheries; production; species profile; publication - [search](#) | [FishBaseWiki](#) | [Sea Around Us](#)

More information

Common names	Age-Size	References	Collaborators
FAO areas	Synonyms	Growth	Aquaculture
Ecoregions	Length-weight	Adult frequency	Biotope; Common
Occurrences	Predators	Length-length	Sound
Introductions	Ecotoxicology	Length-frequencies	Stemata
Stocks	Reproduction	Neophenetics	Genetics
Introduction	Maturity	Morphology	Habitability
Ecology	Spawning	Larvae	Disease
Diet	Fecundity	Larval dynamics	Processing
Food items	Eggs	Recruitment	Main reservoir
Food consumption	Egg development	Abundance	Vision

Tools

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

Special reports

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

Download DNA

Summary page | Point data | Common names | Photos

Internet sources

Alton-Invasive Species database | BHL | Cfish | Websites from users | Check FishWatch | CBST | Catalog of Fishes (gen. sp.) | DiscoverLife | ECOBOX | Fenchel | Fishbase | GenBank/genomes | macdonald | GBASE | Google Books | Google Scholar | Google | IZEA | World Record | Species | National Database | Public aquarium | PubMed | Scirus | SeaLifebase | Tree of Life Web Project | Wikipedia (Co. Search) | World Records | Freshwater Fishing | Encyclopedia | World Record

Estimates of some properties based on models

Physiognomic diversity index (Ref. 82805): PD₀ = 0.5000 [Uniqueness, from 0.5 = low to 2.0 = high]
 Bayesian length-weight: w = 0.0708 (0.0592 - 0.0846), b = 0.2155 (-3.07), based on 1,708 estimates for this species (Ref. 93240).
 Baseline trophic level (Ref. 69278): 3.8 ± 0.4 se. Based on diet studies.
 Baseline trophic level (Ref. 69278): Median, minimum population doubling time 1.4 - 4.4 years (0.06-0.1 yr⁻¹, tm=2, Fe = 10,000).
 Vulnerability (Ref. 59153): Very high vulnerability (79 of 100) individuals.
 Price category (Ref. 80766): Unknown.

2. FishBase

2.2 Species Summary Page

Diagnosis

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 1/5-1/2 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

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.

General distribution

Morphology | Morphometrics

Clarias gariepinus (Burchell, 1822)
North African catfish

Upload your photos and videos
Photos: [Change](#) [Delete](#) [Add new](#)

Add your observations in Fish Watcher
Notes: none | [Add new](#) | [Watch](#) | [Print](#)

Clarias gariepinus
Picture by Lucian, 2016

Classification / Names | [Synonym names](#) | [Synonyms](#) | [Catalog of Fishes](#) (Page: 161) | [ITIS](#) (Cat.) (Invasive) | [Globe](#)

Antonymy: *Clarias* (two-finned fishes) > *Siluriformes* (Catfish) > *Clariidae* (Apothelasma catfishes).
Etymology: *Clarias*: Creek, channel = level, 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 Dutch name for the Orange river, South Africa.

Environment / Climate / Range
Freshwater; bathypelagic; pH range: 6.5 - 8.0 (6); range: 5 - 38; potamodromous (Ref. 31243); depth range: (Ref. 34291); Subtropical; K°C: 21°C (Ref. 6463); 32°N - 28°E

Length at first maturity / Size / Weight / Age
Minimum: L_∞ 91.4; range: 34 - 74 cm
Max length: 170 cm TL, male unsexed. (Ref. 40617); common length: 90.0 cm NO, male unsexed. (Ref. 31260)
Min. published weight: 49.2 kg (Ref. 40273); max. recorded age: 15 years (Ref. 64210)

Short description | [Introduction](#) | [Introduction](#) | [Introduction](#)

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](#) | [Faunafit](#)

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.

Etymology | [Glossary](#) | [Glossary](#) | [Glossary](#) | [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. 24718). They may also occur in fast flowing rivers and rapids (Ref. 248, 25713). Widely tolerant of extreme environmental conditions (Ref. 6463). Water parameters appear to play only a very minor role (Ref. 7818). The presence of an accessory breathing organ enables this species to breathe when very active or under very dry conditions. They remain in the muddy substrates of ponds and occasionally dig air through the mud (Ref. 6463). Can leave the water at night using its strong protracted fin and opens a network of fine blood filled canals over into the breathing areas through very shallow pathways (Ref. 6463). An occasional bottom feeder which occasionally feeds at the surface (Ref. 248). Feeds at night on a wide variety of prey (Ref. 4038) like insects, plankton, invertebrates and fish but also take in young baits, rotting fish and plants (Ref. 6463). Migrate to rivers and temporary streams to spawn (Ref. 4038). Also caught with traps. During intra-specific aggressive interactions, this species was noted to generate electric organ discharges that were monophasic, head-positive and lasting from 5-200 ms (Ref. 16179). Known to shipworms and in aquaculture highly recommended food fish in Africa (Ref. 33863). Marketed fish frozen, often breaded, fried and baked (Ref. 998).

Life cycle and mating behavior | [Mating](#) | [Reproduction](#) | [Spawning](#) | [Eggs](#) | [Incubation](#) | [Larvae](#)

Spawning: Spawning takes place during the rainy season in flooded fields. 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. Incubation lasts little (about 33 hours at 23°C).

Main references | [View references](#) | [References](#) | [Citations](#) | [Collaborators](#)

Tringali, G.C., 1986. A systematic revision of the African species of the genus *Clarias* (Pisces, Clariidae). *Amer. Mus. N. Hist. Contr. Ser. Zool.* 247:199 p. (Ref. 248)

IUCN Red List Status (Ref. 96482) | **CITES** (Ref. 94142) | **Threat to humans**

Least Concern (LC) | Not Evaluated | Potential poof (Ref. 4337)

Human uses
Fisheries: minor commercial; aquaculture: commercial; gamefish: yes
FAO/Aquaculture: production; fisheries: production; species profile: publication | [search](#) | [FishbaseWiki](#) | [Fish Around Us](#)

More information | [Common names](#) | [Age/Size](#) | [References](#) | [Collaborators](#)
FAO areas | [Synonyms](#) | [Growth](#) | [Aquaculture](#) | [Pictures](#)
Ecosystems | [Morphology](#) | [Length-weight](#) | [Aquaculture profiles](#) | [Stamps](#) | [Games](#)
Occurrences | [Predators](#) | [Length](#) | [Length](#) | [Sexual](#) | [Sexual](#)
Introduction | [Ecology](#) | [Length-frequencies](#) | [Genetics](#) | [Captive](#)
Stocks | [Reproduction](#) | [Abundance](#) | [Abundance](#) | [Species](#)
Biology | [Maturity](#) | [Morphology](#) | [Heritability](#) | [SWIM](#) | [Type](#)
Data | [Spawning](#) | [Larvae](#) | [Diet](#) | [Diet](#) | [Diet](#)
Food items | [Feeculture](#) | [Larval dynamics](#) | [Processing](#) | [Ontofit](#)
Food consumption | [Eggs](#) | [Recruitment](#) | [Main waterways](#) | [Status](#)
Fishes | [Egg development](#) | [Abundance](#) | [Vision](#)

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

Special reports
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Summary page | Point data | Common names | Photos

Internet sources
Alm's Invasive Species database | BHL | Citefa | Websites from users | Check Fish Watcher | CISTI | Catalog of Fishes (Gen. sp.) | DiscoverLife | ECOTON | FaunaDB | Fishbase | GenBank (genomic, nucleotide) | GBIF | Google Books | Google Scholar | Google | IZEA | World Record | iSpecies | National Database | Public aquarium | PubMed | Scirus | SeaLifebase | Tree of Life Web Project | Wikipedia (Co. Search) | World Records Freshwater Fishing | Ecological Record

Estimates of some properties based on models
Phylogenetic diversity index (Ref. 82805): PD₀ = 0.5000 [Uniqueness, from 0.5 = low to 2.0 = high]
Biomass: length-weight = 0.00708 (0.00592 - 0.00846), 0.0120 (0.9 - 3.07), based on 1,768 estimates for this species (Ref. 93240)
Resilience (Ref. 69278): 3.8 ± 0.4 sec. Based on det. studies.
Vulnerability (Ref. 69278): Medium, minimum population doubling time 1.4 - 4.4 years (0.06-0.19, tm=2, Fe = 10,000).
Vulnerability (Ref. 39133): Very high vulnerability (79 of 100) individuals
Price category (Ref. 80766): Unknown.



2. FishBase

2.2 Species Summary Page

General biology

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 sharp-tooth 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](#)

Clarias gariepinus (Burchell, 1822)
North African catfish

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Add your observation in Fish Watcher
Watch now: [Add](#) | [Delete](#) | [Watch](#) | [Publish](#)

Clarias gariepinus
Pisces | [Pisces: 78](#)

Classification / Names [Common names](#) | [Synonyms](#) | [Catalog of Fishes](#) | [ITIS](#) | [EOL](#) | [WoRMS](#) | [GBIF](#)

Etymology: *Clarias*: Greek, *clarus* = 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 Dutch name for the Orange river, South Africa.

Environment / Climate / Range

Freshwater; bathypelagic; pH range: 6.5 - 8.0 (SI range: 5 - 18; potamoendemic (Ref. 5124)); depth range: (Ref. 78218); Subtropical; 8°C - 31°C (Ref. 6465); 32°N - 28°S

Length at first maturity / Size / Weight / Age

Maximum L_T: 91.5 cm range 34 - 74 cm
Max length: 170 cm TL, male unsexed. (Ref. 4663); common length: 90.0 cm NO, male unsexed. (Ref. 13266); max. published weight: 60.0 kg (Ref. 4317); max. reported age: 15 years (Ref. 94413)

Short description

Dorsal spine (head): 0. Dorsal soft rays (head): 41-40; Anal spines: 0; Anal soft rays: 45-40; Ventrals: 56-40; Diapophyses: body depth 6-8 times in standard length, head 3-3.5 times (Ref. 5439). Head somewhat between rectangular and pointed in dorsal outline; snout broadly rounded; eyes sparse; lateral and rhinoid (small) (Ref. 248). Teeth on premaxilla and lower jaw small, fine and arranged in several rows; nasal barbels 1.5-1.8 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 outside between origin of dorsal fin and insertion of pelvic fin; outer mandibular barbel longer than inner pair (Ref. 1429). Country 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, 84290). Distances between occipital process and base of dorsal fin in short dorsal fin almost reaches caudal fin, and fin origin closer to caudal fin base than in most, rarely reaching caudal fin; pelvic fin closer to snout than to caudal fin base; posterior fin length from operculum to below 14 dorsal fin rays; prepectal 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, opening to secondary sensory canals clearly marked (Ref. 248). Coloration: 2 colour patterns can be discerned: uniform and mottled 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 colorless or mottled pattern; specimens show irregular dark blotches on light colorless 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 colorless while other part is dark; occasionally, irregular black spots may occur on caudal fin (Ref. 248).

Distribution [Countries](#) | [FAO areas](#) | [Ecoregions](#) | [Diversities](#) | [Pisces map](#) | [Distributions](#) | [Pisces](#)

Africa: almost Pan-Africa, absent from Maghreb, the upper and lower Guinea and the Cape province and probably also Natal 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.

History [Glossary](#) | [Search](#) | [Add synonym](#)

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 sharp-tooth 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

Common names	Synonyms	Age/Size	References
FAO areas	Systematics	Growth	Aquaculture
Encyclopaedia	Monoblasts	Length-weight	Pictures
Occurrence	Predators	Length-length	Stamps
Introduction	Ecology	Length-frequencies	Genetics
Stocks	Reproduction	Age-frequencies	Spawning
Biology	Maturity	Morphology	Habitability
Diet	Systematics	Larvae	Disease
Food items	Fecundity	Larval dynamics	Processing
Food consumption	Eggs	Recruitment	Dams/retention
Fishery	Egg development	Abundance	Vision

Tools

Bio-Quiz | E-book | Field guide | Identification keys | Length-frequency | 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

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Sequence pages | Point data | Common names | Photos

Internet sources

Alton Invasive Species database | BIR | CiteSpace | Websites from users | Check Fish/Watcher | CBIT | Catalog of Fishes (Gen. sp.) | DiscoverLife | ECOTOP | Fennell | Fishbase | GenBank/genomes/macholib | GOBASE | Google Books | Google Scholar | Google | IZEA | World Record | Species | National Database | Public apparatus | PubMed | Scopus | Scifinder | Tree of Life Web Project | Wikipedia (Co. Search) | World Records Freshwater Fishing | Ecological Record

Estimates of some properties based on models

Phylogenetic diversity index (Ref. 82805): PD₀ = 0.5000 [Uniqueness, from 0.5 = low to 2.0 = high]

Biomass length-weight = 0.00708 (0.00592 - 0.00846), w=30 (CI 25 - 3.07), based on 178 estimates for this species (Ref. 93245).

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

Biodiversity (Ref. 69278): Medium, minimum population doubling time 1.4 - 4.4 years (CI 06-01.9, tm=2, Fe = 10.00).

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

Pisces category (Ref. 80766): Unknown.



2. FishBase

2.2 Species Summary Page

Detailed information

Tools

Other websites

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

Clarias gariepinus (Burchell, 1822)
North African catfish



Upload your photos and videos
Photos: [Change](#) [Delete](#) [Add new](#)

Add your observations in Fish Watcher
Status: none | [Add observation](#) | [Feedback](#)

Clarias gariepinus
Picture by Lucien, 178

Classification / Names Common names | Synonyms | Catalog of Fishes (gen., sp.) | CISTI | Cloffa | Invasive | Cloffa
 Actinopterygii (ray-finned fishes) > Siluriformes (Catfish) > Clariidae (African catfishes)
 Etymology: *Clarias*: Greek, *clarius* = level, 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 Dutch name for the Orange river, South Africa.

Environment / Climate / Range
 Freshwater; bathypelagic; pH range: 6.5 - 8.0; dH range: 5 - 38; potamoendemic (Ref. 51243); depth range: 0 (Ref. 34291); Subtropical; T°C: 21°C (Ref. 6463); 32°N - 28°S

Length at first maturity / Size / Weight / Age
 Maturity: L₅₀ = 9.5; range: 3.4 - 9 cm
 Max length: 170 cm TL, male unsexed. (Ref. 46637); common length: 90.0 cm NO, male unsexed. (Ref. 31260); max. published weight: 60.0 kg (Ref. 43173); was, reported age: 15 years (Ref. 94413)

Short description Introduction | Distribution
 Dorsal spine (body): 0; Dorsal soft rays (body): 43-80; Anal spine: 0; Anal soft rays: 45-65; Ventrals: 56-62; Diagonals: body depth 6-8 times in standard length, head 3-3.5 times (Ref. 54390). Head somewhat between rectangular and pointed in dorsal outline; snout broadly rounded; eyes sparse-lateral and relatively small (Ref. 250). Teeth on premaxilla and lower jaw small, fine and arranged in several rows; nasal barbels 1.5-1.8 times as long as head in fishes longer than 12 cm, and 1.2-4.5 of head length in smaller individuals; maxillary barbels mostly shorter than head, usually somewhat longer and reaching to a point midway between origin of dorsal fin and insertion of pelvic fin; outer mandibular barbel longer than inner pair (Ref. 24290). 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 short; dorsal fin almost reaches caudal fin; fin origin close to caudal fin base but less than to snout; snout reaching caudal fin; pelvic fin closer to snout than to caudal fin base; pelvic 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, opening 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 band 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 | Distribution | Introductions | Faunafri
 Africa: almost Pan-Africa, absent from Maghreb, the upper and lower Guinea and the Cape province and probably also Natal province. Asia: Jordan, Iraq, 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 44 photos
 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. 28118). They may also occur in fast flowing rivers and in pools (Ref. 248, 28118). Widely tolerant of extreme environmental conditions (Ref. 6463). Water parameters appear to play only a very minor role (Ref. 78118). The presence of an accessory breathing organ enables this species to breathe air when very active or under less than ideal conditions. They remain in the muddy substrates of ponds and occasionally gulp air through the mouth (Ref. 6463). Can leave the water at night using its strong protracted fin and opens in search of land-based food or can move into the breeding areas through very shallow pathways (Ref. 6568). Are omnivorous bottom feeders which occasionally feed at the surface (Ref. 248). Feed at night on a wide variety of prey (Ref. 6568) like insects, plankton, invertebrates and fish but also take in young birds, rotting flesh and plants (Ref. 6463). Migrate to rivers and temporary streams to spawn (Ref. 46638). Also caught with anguines. 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. 18193). Known as sharpshooth catfish in Singapore, highly recommended food fish in Africa (Ref. 33863). Marketed fresh and frozen, eaten broiled, fried and baked (Ref. 998).

Life cycle and mating behavior History | Introduction | Occurrence | Eggs | Introduction | Larvae
 Oviposers: Spawning takes place during the rainy season in flooded delta. 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. Incubation lasts little (about 33 hours at 25°C).

Main references Upload your references | References | Contributor | Collaborators
 Tregally, G.C., 1986. A systematic revision of the African species of the genus *Clarias* (Pisces: Clariidae). *Ambio Mar. Sci. Ser.*, **5**, 204, 247-299. (Ref. 248)

IUCN Red List Status (Ref. 96492) **CITES** (ref. 94142) **Threat to humans**
 Least Concern (LC) Not Evaluated Potential pest (Ref. 4337)

Human uses
 Fisheries: minor commercial; aquaculture: commercial; panfish; yes
 FAO/Aquaculture: production; fisheries; production; species profile; publication - search | FishbaseWiki | Sea and Land

More information Common names | Age/Size | References | Collaborators
 Common names: Synonyms: Growth: Aquaculture: Pictures:
 Metabolism: Length-weight: Aquaculture profile: Stamps, Coins:
 Predators: Length-length: Strains: Sounds:
 Ecotoxicology: Length-frequencies: Genetics: Ciguatera:
 Reproduction: Morphometrics: Allele frequencies: Speed:
 Maturity: Morphology: Heritability: Swim. type:
 Spawning: Larvae: Diseases: Vision:
 Fecundity: Larval dynamics: Processing: Otoliths:
 Eggs: Recruitment: Mass conversion: Brains:
 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 |

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Estimates of some properties based on models
 Phylogenetic diversity index (Ref. 82805): PD₀ = 0.5000 [Uniqueness, from 0.5 = low to 2.0 = high]
 Bayesian length-weight: $w = 0.0708 (0.00592 - 0.00846)$, $b = 0.02 (0.59 - 3.07)$, based on 178 estimates for this species (Ref. 93240).
 Trophic Level (Ref. 69278): 3.8 ± 0.4 se. Based on diet studies.
 Baseline (Ref. 69278): Medium, minimum population doubling time 1.4 - 4.4 years (L₀-06-019; tm=2; F₀ = 10.00).
 Vulnerability (Ref. 59153): Very high vulnerability (79 of 100).
 Indicators:
 Price category (Ref. 80766): Unknown.



2. FishBase

2.2 Species Summary Page

Parameter estimations

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.**

The screenshot shows the FishBase species summary page for *Clarias gariepinus* (Burchell, 1822), North African catfish. It includes a title bar with navigation options, a header with the species name and a map, and a main content area with detailed biological information. A red box highlights the 'Estimates of some properties based on models' section, which contains the same parameter estimations as shown in the adjacent text blocks. The page also features sections for 'Short description', 'Distribution', 'Biology', 'Life cycle and mating behavior', 'Main references', 'IUCN Red List Status', 'Threat to humans', 'Human uses', 'More information', 'Tools', 'Special reports', 'Download BHL', 'Internet sources', and 'References'.

