

CURRICULUM VITAE  
DR LEOPOLD A.J. NAGELKERKE PHD

## Personal Details

**Family name:** Nagelkerke  
**Given names:** Leopold Adrianus Jacobus  
**Date of Birth:** 25 April 1966  
**Place of birth:** Breda, The Netherlands  
**Nationality:** Netherlands

**Business address:** Wageningen University, Aquaculture and Fisheries Group  
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**Websites:** <https://www.wur.nl/en/Persons/Leo-dr.ir.-LAJ-Leo-Nagelkerke.htm>  
<https://research.wur.nl/en/persons/leo-nagelkerke>

**Publications:** <https://research.wur.nl/en/persons/leo-nagelkerke/publications/>  
*ResearchGate:* [https://www.researchgate.net/profile/Leopold\\_Nagelkerke](https://www.researchgate.net/profile/Leopold_Nagelkerke)  
*Google Scholar:* <https://scholar.google.nl/citations?user=yX7BT6wAAAAJ&hl=nl&oi=ao>  
*Orcid:* <https://orcid.org/0000-0003-1130-749X>  
*Web of Science:* <https://www.webofscience.com/wos/author/record/445473>

## Bio

Dr. Leo Nagelkerke (1966) has been working as a lecturer and researcher at the Aquaculture & Fisheries Group at Wageningen University since 1999. He is specialised in the biology and ecology of (freshwater) fishes. In 1997 he earned his PhD (*cum laude*) for his work on the fish community of Lake Tana in northern Ethiopia. The study encompassed many aspects, such as feeding ecology, spawning behaviour, and even taxonomy: eight new *Labeobarbus* species were described. However, the central theme of the research was the relationship between morphology and feeding. This ecomorphological approach explicitly seeks causal and quantitative relationships between a fish's morphological traits and its functioning in the food web.

After his PhD graduation he worked some time as an ecological advisor, where he collaborated on the Handbook on fish stock sampling for STOWA and led a number of projects on water quality and fish stock management. In 1999 he returned to Wageningen University, where he is led diverse projects, mostly focusing on changes in fish communities due to fishing and other environmental pressures (e.g. in the Eritrean section of the Red Sea and Lake Victoria in Tanzania), and with the relation between fish migration, recruitment of young fish and hydrological changes (Volga River, southern Russia, but also the Wadden Sea and the Rhine River in the Netherlands). In total he supervised >100 MSc students and (co-)supervised 8 graduated and 7 current PhD-students.

Besides in research he is very interested in teaching and involved in many of the university's courses. In his spare time he is an apt birdwatcher and cooperated in many bird counts for Sovon (Dutch Centre for Field Ornithology). In addition, he regularly writes pieces on fish, birds, and nature in general, for a wider audience.

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## Employment record

- 2000-date:** Researcher and lecturer: Wageningen University, Aquaculture and Fisheries Group, Wageningen, The Netherlands
- 1999-2000:** Postdoctoral research fellow and lecturer: Wageningen University, Fish Culture and Fisheries Group, Wageningen, The Netherlands / Netherlands Institute of Ecology (NIOO), Nieuwersluis, The Netherlands
- 1998-1999:** Staff adviser (project leader): Witteveen+Bos, Consulting Engineers, Deventer, The Netherlands
- 1997-1998:** Lecturer: Agricultural University, Wageningen, The Netherlands
- 1992-1996:** Ph.D. researcher: Agricultural University, Wageningen, The Netherlands / Bahar Dar, Ethiopia (Experimental Zoology Group):
- researcher and manager of the project: “*Food, feeding abilities and niche differentiation in the Barbus intermedius complex of Lake Tana, Ethiopia*”;
  - research visits to Moscow, Frankfurt, London, and New York;
  - supervision of and co-operation with a team of trainees and local staff;
  - training of students;
  - training local staff;
  - project management;
  - Ph.D. thesis: “*The barbs of Lake Tana, Ethiopia: morphological diversity and its implications for taxonomy, trophic resource partitioning, and fisheries*” <https://edepot.wur.nl/121222>
- 1990-1992:** Research fellow: Agricultural University, Wageningen, The Netherlands / Bahar Dar, Ethiopia (Experimental Zoology Group):
- researcher on a pilot study on the Lake Tana barb species: nine weeks were spent in Ethiopia: field-work was performed in primitive circumstances.
- 1989:** University of Aberdeen, Scotland:
- research trainee on the immune system of rainbow trout resulting in a scientific publication.
- 1987-1990:** Agricultural University, Wageningen The Netherlands (Experimental Zoology Group):
- practical course assistant of several different zoological courses (general zoology, invertebrate zoology, human biology, cell biology).

# CURRICULUM VITAE

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### Education

- 1990:** MSc in Biology from the Agricultural University Wageningen (*cum laude*); major subjects:  
(1) Animal morphology of cyprinid fishes  
(2) Fish immunology. This research was performed in Aberdeen (Scotland)
- 1997:** PhD degree from the Agricultural University Wageningen (*cum laude*); thesis title: “The barbs of Lake Tana, Ethiopia: morphological diversity and its implications for taxonomy, trophic resource partitioning, and fisheries.” (<http://library.wur.nl/wda/dissertations/dis2325.pdf>). Promotor: Prof. Dr. J.W.M. Osse, co-promotor: Dr. F.A. Sibbing

### Language skills:

	<i>Read</i>	<i>Write</i>	<i>Speak</i>
Dutch	Mother tongue	Mother tongue	Mother tongue
English	Excellent	Excellent	Excellent
German	Good	Fair	Fair
French	Fair	Beginner	Fair

### Teaching qualifications & activities

- University Teaching Qualification (2020)
- Chairman of Education committee of the Graduate School *Wageningen Institute of Animal Sciences* (2012-2015)
- Communication skills trainer (2006 – 2011)
- Training and motivation skills (MSc and PhD students, local staff);
- (Co-)developing the MSc programme *Aquaculture & Marine Resource Management*;
- Developing, co-ordinating and teaching new courses (e.g. Fisheries Ecology, Life History of Aquatic Organisms);
- Programme committee chair for Master of Science in *Aquaculture and Marine Resource Management* (Wageningen University), 2015-2017.
- Advising on study programme matters and innovation of education (member of educational committee and project group ‘Verbreiding Dierwetenschappen’)
- Advising students on their education;
- Experience in project formulation, implementation and management;
- Oral and written communication skills, evident from presentations at workshops and congresses, scientific papers, and popular-science writing.

### International research time

- 6 months at Aberdeen University (1989) during MSc education
- In total 2.5 years in Ethiopia (Bahar Dar) during PhD project (Wageningen University): 1990-1995
- Short research visits (1-2 weeks) to Senckenberg Museum (Frankfurt); British Museum (Natural History), University of British Columbia (2010). Multiple research visits to GoSNIORCh Fisheries Institution in Volgograd, Russia (2005-2008) and the South African Institute for Aquatic Biodiversity (SAIAB) (2010-2018)
- Extensive research experience in Ethiopia, Russia, South Africa, Tanzania, Zambia.

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## Work experience

- <https://research.wur.nl/en/persons/leo-nagelkerke>
- Passage behaviour of large anadromous fish at the Haringvliet estuarine barrier (2022-present)
- Local Knowledge and Perceptions of Environmental Requirements of Fish Communities in the Barotse Floodplains, Zambia (2022-present)
- Free fish migration between rivers and the Wadden Sea (2021-present)
- Connectivity between environmental gradients: towards more effective fish migration (2020-present)
- Feasibility of reintroduction of European sturgeon in the river Rhine basin: disentangling critical interactions between ecology, life history and human impacts (2019 – present)
- Assessment of efficiency of fish passes in small tributaries of the Wadden Sea (2013-present)
- Fish communities in river-floodplain areas along the lower River Rhine (2017 – 2022)
- Population dynamics and role in the food chain of the Queen conch (2014-2019)
- Impact of eutrophication status and Nile perch fisheries on major pathways in the Lake Victoria food web (2008-2015)
- Assessing impacts and benefits of alien fish introductions: do biodiversity costs outweigh economic, food security and recreational benefits derived from alien fishes in South Africa? (2010-2013)
- Changes in the North Sea pelagic fish community - caused by fisheries or climate? (2008-2013)
- Recruitment dynamics of riverine fish in floodplain systems in relation to flood pulses (Volga, Russia) (2005-2010)
- Monitoring fisheries in data-limited situations: a case study of the artisanal reef fisheries of Eritrea (2003-2007)
- Food Web Interactions and Nutrients Dynamics in Polyculture Ponds (2003-2006)

## PhD and MSc supervision

- Co-promoter of graduated PhD students: 8
  - Stoffers, T. (2022). Surviving and growing in dynamic floodplains: Habitat heterogeneity drives communities of young fish in the lower river Rhine. <https://edepot.wur.nl/578368>
  - Boman, E. M. (2019). Biology, monitoring, and management of a tropical marine gastropod: the Queen conch (*Lobatus gigas*) in the Caribbean. <https://edepot.wur.nl/477748>
  - Cornelissen, I. J. M. (2015). Eutrophication, Nile perch and food-web interactions in south-east Lake Victoria. <https://edepot.wur.nl/360892>
  - Raab, K. (2013). The European anchovy (*Engraulis encrasicolus*) increase in the North Sea. <https://edepot.wur.nl/275364>
  - Górski, K. (2010). Floods and fish : recruitment and distribution of fish in the Volga River floodplain. <https://edepot.wur.nl/154839>
  - Tsehaye, I. (2007). Monitoring fisheries in data-limited situations: a case study of the artisanal reef fisheries of Eritrea. <http://library.wur.nl/wda/dissertations/dis4309.pdf>
  - Rahman, M. M. (2006). Food web interactions and nutrients dynamics in polyculture ponds. <https://edepot.wur.nl/44675>
  - van Oostenbrugge, J. A. E. (2003). Uncertainty in daily catch rate in the light fisheries around Ambon and the Lease Islands. <https://edepot.wur.nl/121496>
- Supervisor or daily supervisor of ongoing PhD students: 7
- Supervisor of graduated MSc students: >100.

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## Publications

- <https://research.wur.nl/en/persons/leo-nagelkerke/publications/>
- ResearchGate: [https://www.researchgate.net/profile/Leopold\\_Nagelkerke](https://www.researchgate.net/profile/Leopold_Nagelkerke)
- Google Scholar: <https://scholar.google.nl/citations?user=yX7BT6wAAAAJ&hl=nl&oi=ao>
- Orcid: <https://orcid.org/0000-0003-1130-749X>
- Web of Science: <https://www.webofscience.com/wos/author/record/445473>

## Metrics

Google Scholar (consulted October 2023)

	All	Since 2018
Citations	3323	1426
<u>h-index</u>	31	21
<u>i10-index</u>	60	45

## Key publications

Górski, K., De Leeuw, J. J., Winter, H. V., Vekhov, D. A., Minin, A. E., Buijse, A. D. & Nagelkerke, L. A. J. (2011). Fish recruitment in a large, temperate floodplain: the importance of annual flooding, temperature and habitat complexity. *Freshwater Biology* **56**, 2210-2225.

Nagelkerke, L. A. J., Leon-Kloosterziel, K. M., Megens, H.-J., De Graaf, M., Diekmann, O. E. & Sibbing, F. A. (2015). Shallow genetic divergence and species delineations in the endemic *Labeobarbus* species flock of Lake Tana, Ethiopia. *Journal of Fish Biology*, **87**, 1191–1208.

Nagelkerke, L. A. J., van Onselen, E., van Kessel, N. & Leuven, R. S. E. W. (2018). Functional feeding traits as predictors of invasive success of alien freshwater fish species using a food-fish model. *PLoS ONE* **13**, e0197636.

Nagelkerke, L. A. J., Sibbing, F. A., van den Boogaart, J. G. M., Lammens, E. H. R. R. & Osse, J. W. M. (1994). The barbs (*Barbus* spp.) of Lake Tana: a forgotten species flock? *Environmental Biology of Fishes* **39**, 1-22.

Sibbing, F. A. & Nagelkerke, L. A. J. (2001). Resource partitioning by Lake Tana barbs predicted from fish morphometrics and prey characteristics. *Reviews in Fish Biology and Fisheries* **10**, 393-437.

Stoffers, T., Collas, F. P. L., Buijse, A. D., Geerling, G. W., Jans, L. H., van Kessel, N., Verreth, J. A. J. & Nagelkerke, L. A. J. (2021). 30 years of large river restoration: How long do restored floodplain channels remain suitable for targeted rheophilic fishes in the lower river Rhine? *Science of the Total Environment* **755**, 142931.

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**Proofs of academic esteem**

- PhD with distinction (*cum laude*).
- Member of committee for eel recovery in the Netherlands, assigned by the Ministry of Agriculture, Nature and Food Safety, 2013, 2015.
- Referee for >10 international journals (2000 – date)
- Regular opponent in PhD graduations in Wageningen, Nijmegen, Leiden, Ethiopia
- Regular speaker in WIAS Introduction course
- Membership of the Editorial Board of Animal Biology
- Membership of the Editorial Board of African Zoology
- Member of the Scientific Board of the World recreational Fisheries Conference 2021
- Member of the Technical Committee of the International Conference on Invasive Aquatic Species (2022, 2024)
- Jury member for the Portuguese national funding agency for science, research and technology (FCT).
- Speaker at >30 international scientific conferences.