

Jonathan Roques, PhD

32, French, International mobility

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Biologist, specialized in physiology and behavior of aquatic species

Current position: Postdoctoral researcher, Gothenburg University, Sweden

Work experience

Since Nov 2016	Postdoctoral researcher – Department of Biological and Environmental Science. Gothenburg University, Sweden Project NOMACULTURE: <i>Finding optimal culture conditions for wolffish sp (Anarhichas sp.) in RAS</i>
2015-16	University lecturer (ATER) - Équipe Écologie, Évolution, Symbiose, laboratoire Écologie et Biologie des Interactions, Université de Poitiers, France 'Stress response in terrestrial isopods': <i>Defining and characterizing the stress response in terrestrial isopods. Comparative study and multidisciplinary approach; physiology and behavior</i>
2014	Researcher (ATER) - Département de Biologie, Centre Universitaire de Mayotte, France 'Impact of waste water on physiology and osmoregulation of mangrove crabs': <i>In vitro exposure of crabs to domestic effluent to validate an innovative wastewater treatment solution in an island.</i>
2009-13	Doctoral researcher , Animal physiology department, Radboud University Nijmegen, The Netherlands 'Aspects of Fish Welfare in Aquaculture Practices': <i>Identifying the negative impact of current aquaculture procedures on fish welfare and providing solution for a more sustainable production.</i>
2007-09	Student assistant , Biology undergraduates level classes, Radboud University Nijmegen

Education - diplomas

2009-13	PhD. In Biology , Department of animal physiology (Radboud University Nijmegen, The Netherlands) Supervisor: Professor Gert Flik, PhD (head department)
2007-08	M.Sc. in Biology , Radboud University Nijmegen Research internship: 'improving welfare of European eel, <i>Anguilla anguilla</i> ' (9 months) M.Sc. Thesis: 'Reproduction in eels (genus <i>Anguilla</i>): current knowledge and perspectives'
2006-07	First year of M.Sc. 'FENEC' (ecophysiology), with honors. University of Montpellier, France Research internship: 'Effects of stress on bone formation of the common carp, <i>Cyprinus carpio</i> ' ERASMUS exchange (3 months) between the Universities of Montpellier and Nijmegen
2005-06	B.Sc. in 'Biology of the Organisms' with honors. University of Montpellier

Skills

Project management	<ul style="list-style-type: none">- Defining and structuring scientific project- Fundraising and budget management- Implementation and follow-up of collaborations with public and private sector partners
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Writing and communication	- Scientific writing (13 publications), internal reports, scientific mediation and animation - Oral and poster presentations at several national and international conferences
Teaching and supervision	- Biology practical classes and lectures at master and bachelor levels (> 570 hours) - Student supervision and jury in master's thesis defense committee
Scientific techniques	- Divers biological assays <i>in vitro</i> , radioimmunoassay's, histology, electronic microscopy, mass spectrometry, Ussing chambers - Rearing, nutrition and follow-up of aquatic organisms in controlled environments - Animal handling, biopsies and dissections, pit-tagging, behavioral quantification
Collective activities	- Reviewer for grant attribution programs (NOAA Saltonstall-Kennedy Program, USA) - Reviewer for scientific journals: Publons profile: https://publons.com/author/1199975/jonathan-ac-roques#profile
IT skills	- Microsoft Office, CorelDRAW, Statistica, SPSS, EthoVision, Endnote
Languages	- French (native), English (bilingual), Spanish (fluent), Dutch (notions), Swedish (notions)

Publications list

► **As first author (6)**

- JAC Roques, E Schram *et al.* The impact of elevated water nitrite concentration on physiology, growth and feed intake of African catfish, *Clarias gariepinus*. *Aquaculture Research* (2015) 46:1384-1395
- JAC Roques, E Schram *et al.* The impact of elevated water nitrate concentration on physiology, growth and feed intake of African catfish, *Clarias gariepinus* (Burchell, 1822). *Aquaculture Research* (2014) 45:1499-1511
- JAC Roques, E Schram *et al.* The impact of elevated water ammonia and nitrate concentrations on physiology, growth and feed intake of pikeperch (*Sander lucioperca*). *Aquaculture* (2014) 420-421:95-104
- JAC Roques *et al.* Physiological and behavioural responses to an electrical stimulus in Mozambique tilapia (*Oreochromis mossambicus*). *Fish Physiology and Biochemistry* (2012) 38:1019-28
- JAC Roques, E Schram, *et al.* The impact of elevated water ammonia concentration on physiology, growth and feed intake of African catfish (*Clarias gariepinus*). *Aquaculture* (2010) 306:108-115
- JAC Roques, W Abbink *et al.* Tailfin clipping, a painful procedure: Studies on Nile tilapia and common carp. *Physiology and Behavior* (2010) 101:533-540

► **As co-author (6)**

- F Grandjean, J Roques *et al.* Status of *Pacifastacus leniusculus* and its role in recent crayfish plague outbreaks in France: improving distribution and crayfish plague infection patterns. *Aquatic Invasions* (2017), 12(4):541-549
- AB Garcia *et al.* Ambient salinity and osmoregulation, energy metabolism and growth in juvenile yellowtail kingfish (*Seriola lalandi* Valenciennes 1833) in a recirculating aquaculture system. *Aquaculture Research* (2015) 46(11):2789-2797
- J Boerrigter *et al.* Recovery from transportation by road of farmed European eel (*Anguilla anguilla*). *Aquaculture Research* (2015) 46:1248-1260
- A Palstra *et al.* Forced sustained swimming exercise at optimal speed to enhance growth performance of yellowtail kingfish. *Frontiers in Aquatic Physiology: Physiological adaptations to swimming in fish* (2015) 5: article 00506
- R Manuel, *et al.* Stress in African catfish (*Clarias gariepinus*) following overland transportation. *Fish Physiology and Biochemistry* (2014) 40:33-44
- W Abbink, *et al.* The effect of temperature and pH on the growth and physiological response of juvenile yellowtail kingfish (*Seriola lalandi*) in recirculating aquaculture systems. *Aquaculture* (2012) 330-333:130-135

► **Accepted manuscript (1)**

- D Theuerkauf *et al.* Salinity variation in a mangrove ecosystem: a physiological investigation to assess potential consequences of salinity disturbances on mangrove crabs. **Accepted in *Zoological studies*, 21 June 2018**

Technical reports, science popularization and outreach

- 2014 E Schram, JAC Roques *et al.* Hoe giftig zijn ammonia en nitraat voor snoekbaars? *Aquacultuur* 29, 12-17. **Specialized press article** (*in Dutch*)
- 2012 E Schram, JAC Roques *et al.* Hoe giftig is nitraat voor Afrikaanse meerval? *Aquacultuur* 27, 6-11. **Specialized press article** (*in Dutch*)
Documentary V.I.S.S.E.N., Pieter-Rim et Maarten de Kroon (Windmill films, The Netherlands). Video appearance and technical assistance for the scenes shot at Radboud University Nijmegen
- 2011 W Abbink *et al.* Vissen voelen pijn: dier & welzijn, *V-focus* 8 (5A). - p. 30 – 31. **Specialized press article** (*in Dutch*)
W Abbink *et al.* Kweek van yellowtail kingfish (*Seriola lalandi*) in Nederland. *Aquacultuur* 26 (2). p. 21 – 25. **Specialized press article** (*in Dutch*)
- 2010 E Schram, J Roques *et al.* Het effect van verhoogde ammonia concentratie in het water op fysiologie, groei en voeropname van Afrikaanse meerval (*Clarias gariepinus*). *IJmuiden : IMARES*, (Rapport C026/10) - p. 29. **Technical report** (*in Dutch*)
- 2009 W Abbink, J Roques *et al.* Differential Responses of Nile Tilapia (*Oreochromis Niloticus*) to Fin Clip Wounding and Related Stress: Perspectives. *Yerseke: IMARES*, (Report C133/09) - p. 25. **Technical report**

Expertise and collective activities

- Since 2017 - **Scientific reviewer** for the journal *Aquaculture Research*, Wiley-Blackwell-editors
- **Responsible** for the monitoring of water quality for the aquaria of the Biological and Environmental Sciences department building, Gothenburg University, Sweden
- 2016 - **Redaction of a Biology Undergraduate (1st year) classbook**, Dunod editor, Paris, France. 432 pp, due date: Academic year 2018-2019
- **Scientific reviewer** for the Saltonstall-Kennedy Research Grant Program 2016-17, NOAA, Department of Commerce, USA
- **Scientific reviewer** for the journal *Aquaculture Research*, Wiley-Blackwell-editors
- **Scientific reviewer** for *Journal of Aquaculture*, BioPublisher-editors
- 2015 - **Scientific reviewer** for the Saltonstall-Kennedy Research Grant Program 2016-17, NOAA, Department of Commerce, USA
- **Scientific reviewer** for the journal *Aquaculture Research*, Wiley-Blackwell-editors

Conferences, seminars

► Presenting author

- 2018 **Aquaculture 2018 : recent advances in aquaculture research, Qingdao, China (25-28/09)**. Effects of environmental warming on growth, metabolism and stress responses in *Atlantic wolffish*. **Poster** (accepted)
- 2017 **Colloque d'écophysiologie Animale (CEPA3)**, Strasbourg, France (6-8/11). Stress response of terrestrial isopods: a comparative study on glycemia. **Poster**
- 2015 **Aquaculture 2015 : 'Cutting Edge Science in Aquaculture'**, Montpellier, France (23-26/08)
- Aspects of fish welfare in aquaculture practices. **Oral presentation**
- The impact of elevated water nitrogenous wastes concentration on physiology, growth and feed intake of African catfish and pikeperch. **Poster**
Liverpool University (UK) Responsible use of natural resources: fish welfare in aquaculture and mangrove management. **Seminar**, Institute of Integrative Biology, Dr Lynne Sneddon. **Seminar**, 17/06
- 2012 **IWWR PhD day**, Radboud University Nijmegen, The Netherlands. Fish welfare: why does it matter? A glance in a PhD thesis on stress and pain in fish. **Oral presentation**, 14/11

- IMARES PhD day**, Texel, The Netherlands. Fish welfare: why does it matter? A glance in a PhD thesis on stress and pain in fish. **Oral presentation**, 30/11
- 2011 **Humane Slaughter Association Centenary International Symposium**, Portsmouth, UK. Nociception and pain in fish: implications for practices in the aquaculture chain. **Poster**, 30/06
- 2010 **IWWR PhD day**, Radboud University Nijmegen. The impact of elevated water ammonia concentration on physiology, growth and feed intake of African catfish. **Oral presentation**, 18/11
- 2009 **NVG (Netherlands Society for Behavioural Ecology) workshop** Dalfsen, The Netherlands. Behaviour changes as indicators of pain and welfare impairment of farmed fishes. **Oral presentation**, 25/11
- 2008-2013 **Guest lecturer**, University of Montpellier, during the master's course 'Ecology'. This course, entirely in English gives the opportunity to French students to hear presentations from international scientists and promotes the ERASMUS exchange program

► Co-author

- 2015 **SEB (Society for Experimental Biology) 2015 Prague**, Prague, Czech Republic. Effect of wastewater discharge on the ecology and physiology of mangrove crabs. **Poster**, 1/07
- Western Indian Ocean Marine Science Association (WIOMSA) 9th symposium**, Wild Coast Sun, South Africa (26-31/10). Crabs as mangrove bioindicators. **Poster**
- 2013 **SEB 2013 Valencia**, Valencia, Spain (3-6/07 2013). Swimming performance of juvenile yellowtail kingfish (*Seriola lalandi*). **Presentation**
- 2012 Proceedings of **Aqua 2012 Global Aquaculture - securing our future**, **Prague** (1-5/09)
- Exposure of fish to high nitrate in recirculating aquaculture systems affects growth, feed intake and physiology. **Poster**
 - Stress response in farmed African catfish, *Clarias gariepinus* and European eel, *Anguilla anguilla*, to overland transport. **Oral presentation**
- 2011 **Humane Slaughter Association Centenary International Symposium**, Portsmouth, UK. Assessment of road transport of farmed African catfish and European eel with respect to animal welfare. **Poster**, 30/06
- European Aquaculture Society, Aquaculture Europe 2011 - "Mediterranean Aquaculture 2020"**, Rhodes, Greece (18-21/10)
- Pain and discomfort in fish: studies on Nile tilapia (*Oreochromis niloticus*), common carp (*Cyprinus carpio*) and zebrafish (*Danio rerio*). **Oral presentation**
 - Culture of yellowtail kingfish (*Seriola lalandi*) in RAS. **Oral presentation**
- 2010 Proceedings **Aquaculture Europe 2010**, Porto, Portugal (5-8/10). Tailfin clipping: a painful procedure: studies on Nile tilapia (*Oreochromis niloticus*) and common carp (*Cyprinus carpio*). **Oral presentation**

Supervision of undergraduate / graduate students

Year	University	Student identity	Level	Duration	Supervision rate
2017-18	Göteborg	Robert Morgan	Bachelor	3 months	25%
2017-18	Göteborg	Felicia Fetscher	Bachelor	3 months	100%
2017-18	Göteborg	Koen de Reus	Bachelor	6 months	100%
2016	Poitiers	Camille Houdelet	Master	3 months	50%
2014	CUFR de Mayotte	Laurence Azzopardi	Master	6 months	90%
2012	RU Nijmegen	Tirsa van Schaik	Bachelor	3 months	100%
2011-12	RU Nijmegen	Margot Bekhuis	Master	6 months	90%
2011	RU Nijmegen (ERASMUS)	Yanik Yokohama	Master	3 months	100%
2010	RU Nijmegen (ERASMUS)	Aurelie Fournayron	Master	3 months	100%
2010	RU Nijmegen (ERASMUS)	Gaëtan Chereau	Master	3 months	100%
2009-10	RU Nijmegen	Femke Geurds	Master	6 months	90%
2007	RU Nijmegen	Erik Ducker	Licence	3 months	75%

Teaching experience

Year	University	Level	Type*	Course name	Hours
2017	Gothenburg	Master	LE	Marine Animal Species	3
2017	Poitiers	Master IMAE	Seminar-LE	Advanced projects in Ecology	3
2016	Poitiers	Master	PT	Génétique des populations	12
2016	Poitiers	Master	LE/TU/PT	Ecophysiologie et chronobiologie	15
2016	Poitiers	Bachelor	TU	Sexualité et reproduction	6
2016	Poitiers	Bachelor	TU/PT	Evolution des plans d'organisation	39
2015	Poitiers	Bachelor	TU/PT	Organismes et milieux	44
2015	Poitiers	Master	Seminar-LE	Stratégies évolutives	4
2015	Poitiers	Master IMAE	PT	Modeling and statistic tools	8
2015	Poitiers	Master IMAE	PT	Advanced projects in Ecology	8
2015	Poitiers	Master IMAE	Seminar	Travaux de recherche	2
2015	Poitiers	Master IMAE	PT	Molecular ecology	8
2015	Poitiers	Bachelor	TU/PT	Diversité du vivant	53
2015	Poitiers	Bachelor	PT	Diversité du vivant	24
2014	CUFR Mayotte	Bachelor	PT	Histologie	8
2013	RU Nijmegen	Master/PhD +	LE	Laboratory Animal Sciences	4
2013	RU Nijmegen	Master	LE	Animal Physiology	6
2013	RU Nijmegen	Master	LE	Endocrinology	6
2013	Montpellier	Master	Seminar-LE	Ecology	8
2012	RU Nijmegen	Master/PhD +	LE	Laboratory Animal Sciences	4
2012	RU Nijmegen	Master	LE	Animal Physiology	6
2012	RU Nijmegen	Master	LE	Endocrinology	6
2012	Montpellier	Master	Seminar-LE	Ecology	8
2011	RU Nijmegen	Master/PhD +	LE	Laboratory Animal Sciences	4
2011	RU Nijmegen	Master	LE	Animal Physiology	6
2011	RU Nijmegen	Master	LE	Endocrinology	6
2011	Montpellier	Master	Seminar-LE	Ecology	8
2011	RU Nijmegen	Bachelor	PT	Cytology-histology	40
2010	Montpellier	Master	Seminar-LE	Ecology	8
2010	RU Nijmegen	Bachelor	PT	Cytology-histology	40
2009	Montpellier	Master	Seminar-LE	Ecology	8
2009	RU Nijmegen	Bachelor	PT	Endocrinology	20
2009	RU Nijmegen	Bachelor	PT	Cytology-histology	40
2008	Montpellier	Master	Seminar-LE	Ecology	8
2008	RU Nijmegen	Bachelor	PT	Endocrinology	20
2008	RU Nijmegen	Bachelor	PT	Cytology-histology	40
2007	RU Nijmegen	Bachelor	PT	Cytology-histology	40
Total =					573

* LE = Lectures, PT = Practical Tutorial, TU Tutorial

Qualifications / habilitations

- Since 2015: qualified as lecturer by the French National University Council in physiology (section 66, qualif. no. 15266274316) and biology of the organisms (section 68, qualif. no. 15268274316)
- Certified to work with radioactive substances in the Netherlands (Level 5B certificate)
- Certified to design and perform animal studies (FELASA, category C)

Free time activities

Scientific animation. Sympathiser of the association Les Petits Débrouillards

Badminton, Basketball. Trainer of the team 'Radbal' (2011-13), volunteer scoring table / referee for the SABCH club (2014-15)

Theatre. Founder and instructor of the student improvisation theater society 'Yagamoto' (2009-10)

Diving and aquatic photography (level CMAS 3*)

References

Pr. Dr. Gert Flik

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of Animal Ecology and Physiology
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