SWEMARC
SWEDISH MARICULTURE RESEARCH CENTER

Identification

Jonathan AC Roques

36, PhD
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Work experience

Current position: Researcher, University of Gothenburg, Sweden (*Since January 2021*)
Research project: Mariculture technical innovations in Sweden (MARTINIS)
Laboratory: Department of Biological and Environmental Sciences, University of Gothenburg

Previous positions:

- **Researcher**, University of Gothenburg (*November 2018-December 2020*)
  Research project: developing Swedish circular marine aquaculture system within SWEMARC, the Swedish mariculture research center
  Laboratory: Department of Biological and Environmental Sciences, University of Gothenburg

- **Postdoctoral researcher**, University of Gothenburg (*November 2016-October 2018*)
  Research project: NOMACULTURE, Finding optimal culture conditions for spotted wolffish in RAS
  Laboratory: Department of Biological and Environmental Sciences, University of Gothenburg

- **Lecturer** (ATER), Université de Poitiers, Poitiers (France) (*Septembre 2015-August 2016*)
  Research project: Stress response in terrestrial isopods
  Laboratory: Laboratoire Ecologie et Biologie des Interactions, UMR CNRS 7267

Doctorate

PhD (2013) from Radboud University Nijmegen, Nijmegen, The Netherlands
Title: Aspects of Fish Welfare in Aquaculture Practices
Specialty: Physiology, Biology of aquatic organisms, Behavior
Laboratory: Department of Animal Physiology, Radboud University Nijmegen
Promotor: Dr. Pr. Flik (RU Nijmegen), Dr. van de Vis and Dr. Abbink (Wageningen University & Research

Education

Year	Diploma	University	Honors
2013	PhD in Biology	Radboud University Nijmegen (NL)	-
2008	Master II Biology	Radboud University Nijmegen (NL)	-
2007	Master I FENEC (Ecology)	Université de Montpellier (FR)	With honors
2006	Bachelor in Biology of the Organisms	Université de Montpellier (FR)	With honors

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Research

a) Research projects

Since 2020	**AkvaCirkulär:** Aquatic circular systems for sustainable food production, University of Gothenburg
Since 2018	**MARTINIS:** Mariculture technical innovations in Sweden, University of Gothenburg *,#
Since 2018	**SWEMARC:** Developing sustainable marine aquaculture in Sweden, University of Gothenburg
Since 2018	**MARTINIS:** Mariculture technical innovations in Sweden, University of Gothenburg *
2016-18	**NOMACULTURE:** Finding optimal culture conditions for wolffish in RAS, Gothenburg University
2015-16	**Stress response in terrestrial isopods**, Université de Poitiers *
2014	**Impact of domestic effluent on physiology of mangrove crab**, Université de Mayotte *
2009-13	**Aspects of fish welfare in aquaculture practices**, Radboud University Nijmegen & IMARES *
2012-14	Introduction and search for the optimal culture conditions of a new species to Dutch aquaculture: ‣ Fork to farm: sustainable fish farming in the Netherlands, IMARES ‣ KINGKONG: Yellowtail kingfish quality improvement by swimming exercise, nutrition and genetics, IMARES
2011-12	Value of animal welfare, Radboud University Nijmegen & IMARES

Main researcher; #project coordinator

b) Scientific publications in peer-reviewed journals: 20 (8 as first author; IF: 2020)

Roques, Micolucci *et al.* (**2021**) Effects of recirculating aquaculture system wastewater on anammox performance and community structure. *Processes* 9:1183. IF: 2,847

Hjelmstedt *et al.* (**2021**) Continuous physiological welfare evaluation of European whitefish (*Coregonus lavaretus*) during common aquaculture practices leading up to slaughter. *Aquaculture* 534:736258. IF: 4,242

Roques *et al.* (**2020**) Stress response in terrestrial isopods: A comparative study on glycaemia. *Applied Soil Ecology* 156: 103708. IF: 4,046

Baudry *et al.* (**2020**) Invasion and distribution of the redclaw crayfish, *Cherax quadricarinatus*, in Martinique. *Knowledge & Management of Aquatic Ecosystems* 421:50. IF: 1,677

Brijs *et al.* (**2020**) Prevalence and severity of cardiac abnormalities and arteriosclerosis in farmed rainbow trout (*Oncorhynchus mykiss*). *Aquaculture* 526:735417. IF: 4,242

Guo *et al.* (**2020**) Effects of different feeding regimes on juvenile black rockfish (*Sebastes schlegilii*) survival, growth, digestive enzyme activity, body composition and feeding costs. *Aquaculture Research* 51:4103-4122. IF: 2,082

Knutsen *et al.* (**2019**) Fish welfare, fast muscle cellularity, fatty acid and body-composition of juvenile spotted wolffish (Anarhichas minor) fed a combination of plant proteins and microalgae (*Nannochloropsis oceanica*). *Aquaculture* 506:212-223. IF: 4,242

Theuerkauf *et al.* (**2018**) Salinity variation in a mangrove ecosystem: a physiological investigation to assess potential consequences of salinity disturbances on mangrove crabs. *Zoological studies* 57:36. IF: 2,058

Grandjean *et al*. (**2017**) Status of *Pacifastacus leniusculus* and its role in recent crayfish plague outbreaks in France: improving distribution and crayfish plague infection patterns. *Aquatic Invasions* 12:541-549. IF: 2,170

Roques, Schram *et al.* (**2015**) The impact of elevated water nitrite concentration on physiology, growth and feed intake of African catfish, *Clarias gariepinus*. *Aquaculture Research* 46:1384-1395. IF: 2,082

Garcia *et al*. (**2015**) Ambient salinity and osmoregulation, energy metabolism and growth in juvenile yellowtail kingfish (*Seriola lalandi* Valenciennes 1833) in a recirculating aquaculture system. *Aquaculture Research* 46(11):2789-2797. IF: 2,082

Boerrigter *et al.* (**2015**) Recovery from transportation by road of farmed European eel (*Anguilla anguilla*). *Aquaculture Research* 46:1248-1260. IF: 2,082

Palstra *et al.* (**2015**) Forced sustained swimming exercise at optimal speed to enhance growth performance of yellowtail kingfish. *Frontiers in Aquatic Physiology: Physiological adaptations to swimming in fish* 5:00506. IF: 4,566

Roques, Schram *et al*. (**2014**) The impact of elevated water nitrate concentration on physiology, growth and feed intake of African catfish, *Clarias gariepinus* (Burchell, 1822). *Aquaculture Research* 45:1499-1511. IF: 2,082

Roques, Schram *et al*. (**2014**) The impact of elevated water ammonia and nitrate concentrations on physiology, growth and feed intake of pikeperch (*Sander lucioperca*). *Aquaculture* 420-421:95-104. IF: 4,242

Manuel, *et al*. (**2014**) Stress in African catfish (*Clarias gariepinus*) following overland transportation. *Fish Physiology and Biochemistry* 40:33-44. IF: 2,794

Abbink, *et al*. (**2012**) The effect of temperature and pH on the growth and physiological response of juvenile yellowtail kingfish (*Seriola lalandi*) in recirculating aquaculture systems. *Aquaculture* 330-333:130-135. IF: 4,242

Roques *et al*. (**2012**) Physiological and behavioural responses to an electrical stimulus in Mozambique tilapia (*Oreochromis mossambicus*). *Fish Physiology and Biochemistry* 38:1019-28. IF: 2,794

Roques, Schram, *et al*. (**2010**) The impact of elevated water ammonia concentration on physiology, growth and feed intake of African catfish (*Clarias gariepinus*). *Aquaculture* 306:108-115. IF: 4,242

Roques, Abbink *et al*. (**2010**) Tailfin clipping, a painful procedure: Studies on Nile tilapia and common carp. *Physiology and Behavior* 101:533-540. IF: 3,244

c) Submitted manuscripts (1)

Hinchcliffe *et al.* Effects of dietary protein level on growth and health of juvenile Atlantic wolffish, *Anarhichas lupus. Submitted to the Journal of Fish Biology, 07-07-2021*

d) Book chapters (3)

FLUORESCIENCES BIOLOGIE (Dunod editors, Paris). Biology Undergraduate (1st year) textbook, 432 pages, first edition: 10/10/2018, ISBN: 978-2-10-076515-7. *In French*. *Main author on*:

- Ch. 1: Histoire des classifications: vers la classification actuelle (*history of phylogeny*)
- Ch. 11 : Génétique mendélienne et méiose (*genetic*)
- Ch. 15 : Métazoaires : développement et principaux phylums (*animal development & taxonomy*)

e) Citations indices

	All	Since 2016
Citations	**669**	**510**
h-index	12	12
i10-index	13	13

Source: Google scholar, **September 2021**

f) Seminars and congresses

Seminar or congress, venue	Year	Rank in the communication	Oral	Poster
Aquaculture Europe 2021, Madeira, PT (upcoming)	2021	4th		x
MIRAI sustainability workshop, Karlstads, SW (upcoming, online)	2021	1st*	x	
MIRAI sustainability workshop, Gothenburg, SW (online)	2021	1st*	x	
Nationella Vattenbrukskonferensen, Åhus, SW	2020	1st*		x
Nationella Vattenbrukskonferensen, Åhus, SW	2020	2nd		x
Nationella Vattenbrukskonferensen, Åhus, SW	2020	5th	x	
MIRAI sustainability workshop, Stockholm, SW	2019	1st*	x	X
Hiroshima University, Higashi-Hiroshima, JP	2019	1st*	x	
MIRAI sustainability workshop, Tokyo, JP	2019	1st*	x	
Danish aquaculture day, Copenhague, DK	2019	1st*	x	
Marine challenges blue solutions, Chalmers, Gothenburg, SW	2018	1st *		X
Marine challenges blue solutions, Chalmers, Gothenburg, SW	2018	2nd *		X
AquaAgri final conference, Stockholm, SW	2018	1st *		X
AquaAgri final conference, Stockholm, SW	2018	1st *		X
MIRAI sustainability workshop, Tokyo, JP	2018	1st *	x	X
Aquaculture 2018, Qingdao, CN	2018	1st *	x	X
Aquaculture 2018, Qingdao, CN	2018	2nd	x	X
MIRAI sustainability workshop, Gothenburg, SW	2018	1st *	x	
Colloque d'écophysiologie animale (**CEPA3**), Strasbourg, FR	2017	1st *		X
Aquaculture 2015, Montpellier, FR	2015	1st *	x	
Aquaculture 2015, Montpellier, FR	2015	1st *		X
Liverpool University, Liverpool, UK, seminar	2015	1st *	x	
SEB Prague, Prague, CZ	2015	3rd		X
WIOMSA 9th symposium, Wild Coast Sun, ZA	2015	3rd		X
SEB Valencia, Valencia, Spain	2013	5th		X
Proceedings of Aqua 2012 Global Aquaculture, Prague, CZ	2012	2nd		X
Proceedings of Aqua 2012 Global Aquaculture, Prague, CZ	2012	6th	x	
IWWR PhD day, Radboud University Nijmegen, NL	2012	1st *	x	
IMARES PhD day, Texel, NL	2012	1st *	x	
HSA Centenary International Symposium, Portsmouth, UK	2011	1st *		x
HSA Centenary International Symposium, Portsmouth, UK	2011	3rd		x
Aquaculture Europe 2011, Rhodes, GR	2011	2nd	x	
Aquaculture Europe 2011, Rhodes, GR	2011	5th	x	
IWWR PhD day, Radboud University Nijmegen, NL	2010	1st *	x	
Proceedings Aquaculture Europe 2010, Porto, PT	2010	2nd		
NVG PhD workshop, Dalfsen, NL	2009	1st *	x	

**** Presenting author***

g) Grants

Type	Year	Financing organism	Amount
Research grant	2021	Strategic innovation program for process industrial IT and automation – PiiA, VINOVA, Stockholm	600,000 SEK
Research grant	2020	MARTINIS, FORMAS, annual open call 2021 – Research projects for early-career researchers, Stockholm	4,000,000 SEK
Research grant	2020	Birgit & Birger Wåhlströms Foundation, Stockholm	40,000 SEK
Research grant	2020	KSLA, Stockholm, Sweden	40,000 SEK
Research grant	2020	KVVS, Gothenburg, Sweden	40,000 SEK
Research grant	2020	Helge Axelsson Johnsons Foundation, Stockholm	70,000 SEK
Research grant	2020	Wilhelm & Martina Lundgrens Foundation, Gothenburg	57,000 SEK
Joint research grant	2020	JSPS, Tokyo, Japan	14,500,000 JPY*
Joint research grant	2020	STINT, Stockholm	400,000 SEK
Research grant	2020	AkvaCirkulär, Familjen Kamprads Foundation, Växjö	15,000,000 SEK
Travel grant	2019	University of Gothenburg, Gothenburg	8,000 SEK
Travel grant	2019	Knut and Alice Wallenberg Foundation, Stockholm	9,000 SEK
Research grant	2019	Helge Axelsson Johnsons Foundation, Stockholm	80,000 SEK
Initiation grant	2019	STINT, Stockholm	150,000 SEK
Travel grant	2019	University of Gothenburg, Gothenburg	20,000 SEK
Travel grant	2018	University of Gothenburg, Gothenburg	18,500 SEK
Travel grant	2018	Knut and Alice Wallenberg Foundation, Stockholm	12,000 SEK
Travel grant	2017	Knut and Alice Wallenberg Foundation, Stockholm	4,250 SEK
Travel grant	2017	Company of biologists, Cambridge	400 €*

1 €= 10,2 SEK ; 1 JPY= 0,08 SEK (September 2021)

Teaching and supervision

a) Teaching hours:

Over 700 hours (since 2007), Level: Bachelor and Master, Language: English and French

b) Students supervision

20 trainees (since 2007), including 1 Post-doc, 13 Master and 6 Bachelor students