Dr Isabel Smallegange SFHEA

Senior Lecturer in Population Biology

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Research Summary

I am a population biologist with expertise in developmentally informed demography, experimental evolution and ecological modelling. My research integrates theory and empiricism to understand how developmental and behavioural processes shape eco-evolutionary population dynamics in both marine and terrestrial systems. I have pioneered frameworks linking energetics and agency to phenotypic plasticity, with applications from model invertebrates to marine megafauna, including studies on the ecology, behaviour and conservation of species in changing ocean environments. My work has been recognised internationally, and I lead interdisciplinary collaborations spanning marine biology, terrestrial ecology, philosophy and conservation, generating insights that inform both fundamental science and applied management in the context of global environmental change.

Professional Appointments

2024 – present	**Co-Lead** Behaviour Newcastle University Centre of Research Excellence, UK
2024 – present	**Director of Culture & Inclusion**, SNES, Newcastle University, UK
2023 – present	**Group Lead**, Modelling, Evidence and Policy group, Newcastle University, UK
2022 – present	**Senior Lecturer**, SNES, Newcastle University, UK
2022 – 2024	**Co-Director** Centre for Behaviour and Evolution, Newcastle University, UK
2018 – 2022	**Associate Professor**, Faculty of Science, University of Amsterdam, NL
2013 – 2018	**MacGillavry Fellowship**, Faculty of Science, University of Amsterdam, NL
2010 – 2013	**Research Fellow** at Imperial College London & University of Oxford, UK
2008 – 2010	**Rubicon Fellowship** (NWO) – held at Imperial College London, UK
2007 – 2008	**Alexander v Humboldt Fellowship** – held at Max Planck Inst. for Ornithology, G
2005	**Marie Curie Research Trainee Fellowship** – held at University of Exeter, UK

Education

2022	Senior Fellowship of the Higher Education Academy (SFHEA) (UK)
2014	University Teaching Qualification for Lecturers (The Netherlands)
5 Sep 2007	PhD, '*Interference competition and patch choice in foraging shore crabs*' (0.8 fte) Netherlands Institute for Sea Research & University of Amsterdam, The Netherlands
2000	BSc + MSc Population Biology, Wageningen University, The Netherlands

My Research Achievements

Overview - I have secured over £2.8M in competitive personal fellowships and contribute to major international collaborations. My outputs include >35 invited talks and 57 (out of 69) first/senior-author peer-reviewed papers, ranking me in the global top 0.5% of scholars in Population Dynamics.

Conceptual innovation and field impact - I have pioneered frameworks linking energetics and agency to phenotypic plasticity, underpinning three first/single-author articles in *Trends in Ecology & Evolution* (IF 17.3) on eco-evolutionary population dynamics (2013), conflict and plasticity (2015, F1000 recommended), and development as a cause of eco-evolutionary dynamics (2022). A core original contribution is a mechanistic population model linking developmental plasticity and demography (*Methods in Ecology & Evolution*, 2017), applied to diverse systems including estuarine

polychaetes (*InTechOpen*, 2025), elasmobranch life histories (*Ecology Letters*, 2025a) and species conservation potential (*Ecology & Evolution*, 2025).

Recognition and application - My modelling approach has been featured in *Methods in Ecology & Evolution*'s virtual issue on integrating ecology and evolution, and highlighted by *Journal of Animal Ecology* (2024) as pioneering in capturing organismal complexity in population responses to environmental change. The award-winning, associated open-access DEBBIES dataset (*Scientific Data*, 2024), with press coverage, is enabling global research on life-history variation across ectotherms.

Recent advances - My recent publications apply these frameworks to marine systems, including studies of plasticity in elasmobranch life histories (*Ecology Letters*, 2025a) and resilience indicators in estuarine ecosystems (*InTechOpen*, 2025). I also contribute to large-scale syntheses on predicting population responses to anthropogenic disturbance (*Ecology Letters*, 2025b), bridging empirical ecology, conservation science, and policy-relevant modelling.

Leadership in Research and Innovation

I have held strategic leadership roles across multiple institutions. At the University of Amsterdam (2018–2021), I chaired the Faculty of Science Works Council, representing over 1,500 staff and shaping faculty-wide policy on research-led teaching, career development and inclusive promotion criteria. In 2021, I joined the Dutch Research Council's steering committee for "Organisms in their Environment," advising on national research priorities and consortium building. Since 2022, at Newcastle University, I lead the Modelling, Evidence and Policy research group, fostering a collaborative and inclusive research culture, promoting interdisciplinary exchange and sustainability (SDG 15), and contributing to REF2029 preparations, including impact case study coordination and PCE strategy. As Co-Lead of the Behaviour Newcastle University Centre of Research Excellence, I drive knowledge exchange and lead a bid for a Leverhulme Centenary Research Centre. As School Director of Culture & Inclusion, I have implemented a sounding board pipeline to embed ED&I in all School policies, launched new leadership roles and contributed to the Reimagining Leadership Project, trialling brain-based leadership to foster psychologically safe environments. These experiences reflect my commitment to inclusive, high-performing research cultures and strategic innovation leadership.

Fellowships, Honours and Awards

2025– **Open Research Champion** (Newcastle University)
2025 **Open Research Award, 2nd place**, for my open research practice (Newcastle University)
2025 **Nomination** for **Outstanding Woman Researcher** – Venus International Foundation
2025 **Newcastle University Nominee, Frontiers Planet Prize** for the paper in *Ecology Letters* (2025), recognised as breakthrough research addressing multiple planetary boundaries.
2024 **Top Scholar Recognition** (ScholarGPS 2024): ranked in the **top 0.5% of scholars worldwide** in the field of Population Dynamics over the past five years, based on publication impact, research quality, and scholarly contributions
2023 **Columbia Sponsored Travel Award** £500
2017 **Nominated for Lecturer of the Year** 2017 (University of Amsterdam)
2014 **Aspasia Grant Laureate**, awarded by the Dutch Research Council, 100k€
2014 **VIDI Laureate**, awarded by the Dutch Research Council, 5 years, 800k€
2013 **MEERVOUD Laureate** awarded by the Dutch Research Council, 4 years, 225k€
2013 **MacGillavry Fellowship**, awarded by University of Amsterdam, 5 years, 850k€
2010 **Nominated among 400 top women-under-38 Dutch talent** by Viva Magazine
2009 **Dutch Wadden Academy Prize** for best PhD thesis, €5,000
2008 **Rubicon Fellowship**, awarded by Dutch Research Council, 2 years, 88k€
2007 **Alexander von Humboldt (AvH) Fellowship**, awarded by AvH Foundation, 1 year, 25k€
2005 **Marie Curie Research Fellowship**, awarded by Marie Curie Fellowship Assoc., 6 mo, £6,000
2001 **Poster award**, First European Conference on Behavioural Biology, Münster (Germany)

Grants & Projects

2026-34 **Co-I** (65k£) on Lot 9.1 *Nature and Climate Analysis* within 1.6M£ **UK RDE Framework**; Fera Science Ltd is lead applicant with Newcastle University (NU) as major subcontractor
2025- Biogeography, Modelling and Management Tools **Working Group**. British Antarctic Survey.
2024-26 Co-researcher **Participatory Action Research Group** Reimaging Leadership Project (NU)
2024-27 **Co-I** DISCAR **international research consortium** (200k€, 2024-27)
2022 **Co-I** on 1M€ work package within 9M€ awarded to NWA-ORC MetaHealth consortium
2021 **Travel grant**, €4,011, Amsterdam University Fund (**PI**)
2019 **1.5 yr, 0.8 fte, Post Doc position**, 100k€, University of Amsterdam (**PI**)
2017 **Marie Curie Fellowship** ECOEVOCLIM 166k€ (**co-supervisor**)
2015 **Post Doc position, 3-yr, 1 fte,** 185k€, University of Amsterdam (**PI**)

Invited Talks (last 5 years)

2026 ANdinA workshop on predicting ecology – Nerin (Aragon) (S)*
2025 Symposium – BioShorts 2025 Conference on Ecology, Conservation and Biodiversity (UK)
2025 Departmental seminar – Bielefeld University (G)
2025 Seminar – Centre for Biodiversity Analysis, Australian National University (AUS)*
2025 Symposium keynote speaker at the Congress of the European Society for Evol. Biology (E)
2025 Symposium – Swiss Federal Institute of Aquatic Science and Technology (CH)
2024 Seminar – Centre for the Synthesis and Analysis of Biodiversity (F)
2023 Departmental seminar – Max Planck Institute for Evolutionary Biology (D)
2023 Symposium keynote speaker at Int. Society for Developmental Psychobiology (NL)
2022 Keynote speaker Int. Conference on Stickleback Behaviour and Evolution (IS)
2022 Symposium keynote speaker at the Congress of the European Society for Evol. Biology (CZ)
2022 Departmental seminar – Dept Biological and Environmental Science, Univ. of Jyväskylä (FN)
2022 Seminar – Centre for Behaviour and Evolution, Newcastle University (UK)
2021 Departmental seminar – Department of Philosophy, Ruhr-University Bochum (D)
2021 Departmental seminar – Department of Biology, Université de Sherbrooke (Canada)
2021 Departmental seminar – Behavioural Ecology seminar series, LMU München (D)
2020 Keynote speaker at EVENET eco-evolutionary dynamics symposium (B)

* *declined due to care duties*

Editorial and Review Service

- **Guest Editor** *Functional Ecology* on Special Feature on Phenotypic Plasticity
- **Associate Editor (4 journals; 1 peer community)**: *Functional Ecology* (since 2018), *Oikos* (since 2013), *Entomologia Experimentalis et Applicata* (since 2019), and *Journal of Animal Ecology* (2011 – 2014); *Recommender* for *PCI Zoology* (since 2019)
- **Grant Reviewer** for Austrian Science Fund, Earthwatch, ERC H2020, NERC, ESF-FWO, Norway Research Council, NSF, NWO, Swiss National Science Foundation, The Royal Society, Leverhulme
- **Manuscript Reviewer** for >40 journals, incl. Nature, PNAS, Nature Ecol & Evol, Scientific Reports
- **Invited expert member** of the **FWO Review College** (2025-2028)
- **Invited member** of the **European Science Foundation College of Expert Reviewers**

Committee Service and Membership (last 5 years)

2025 – present **Expert** with the Science Media Centre (independent press office for science)
2023 – present Member **IUCN SSC Mite Specialist Group**
2022 – present **SNSF Swiss Postdoctoral Fellowships Selection Committee**
2021 – present Invited member of the **European Science Foundation College** of **Expert Reviewers**
2008 – present **Member** of the British Ecological Society

2024 – 2025	**Expert evaluator** MSCA4Ukraine programme - Alexander von Humboldt Foundation
2022	**Panel Chair** of **Grant Selection Committee** Dutch Research Council
2023	**Organiser** Ecosystems Science Day at Newcastle University
2022	**Member** tenure track midterm evaluation committee University of Amsterdam
2021	**Member** steering committee Dutch research community Organisms in the Environment Netherlands Organisation for Scientific Research
2021 – 2022	**Elected Member** of the Faculty of Science Works Council (UvA)
2020 – 2021	**Member** sounding board evaluation tenure track policy Faculty of Science (UvA)
2020 – 2021	Member **Programme Committee** Bachelor Future Planet Studies (UvA)
2019 – 2021	Member **Scientific Advisory Council** at the IBED (UvA)
2019	**Advisory Appointment Committee** tenure track position theoretical ecology
2018 – 2022	**Mentor**, Women in Science, British Ecological Society
2018 – 2021	Member **Programme Committee** Bachelor Biology (UvA)
2018 – 2021	**Elected Chair** of the Faculty of Science Works Council (UvA)
2017 – 2019	**DO-VENI Fellowship Selection Committee** of NWO (3x)
2016 – 2022	**Staff member** Production Ecology & Resource Conservation Graduate School (NL)

Teaching and Supervision (last 5 years)

2025 – present	**Senior Support Tutor** (biology/zoology undergraduates) (Newcastle University)
2023 – present	Contributor to redesigning Biology and Zoology curriculum (Newcastle University)
2022 – present	**(Co)-supervisor** of four PhD students (Newcastle University)
2022 – present	Member of six **PhD Progress Review Panels** (Newcastle University)
2022 – present	Module leader, including course design, and lecturer of two Stage 2 undergraduate modules (Newcastle University)
2022 – present	**Joint Honours Liaison** Biology – Psychology (Newcastle University)
2007 – present	**Supervisor** of on average **6 BSs/MSc student projects per year**
2022 – 2025	**Senior Tutor** & **Peer Mentor Coordinator** (Newcastle University)
2020 – 2022	Member **Programme Committee** Bachelor Future Planet Studies (UvA)
2018	MSc track design 'Future Planet Ecosystem Science' at the IBED (UvA)
2018 – 2022	Member **Programme Committee** Bachelor Biology (University of Amsterdam)
2014 – 2022	**(Co)-supervisor** 7 PhD students & 3 postdocs; **12 PhD defence committees; Module leader**, including course design, and lecturer of six undergraduate modules and postgraduate modules (University of Amsterdam)

Selected Outreach and Impact

- Press release Lucas et al. 2025, covered by Phys.org, Sciencemag, EurekAlert, French Sciences et Avenir (interview). Blog posts at From Newcastle University blog, Nature Research Communities.
- News and Opinion blog post on Evolution at Springer Nature Research Communities, based on Smallegange & Guenther (2025), also posted at the From Newcastle University blog.
- Press release DEBBIES (Smallegange & Lucas 2024), also covered by Phys.Org, OneGreenPlanet. With 'Behind the paper' blog post at Springer Nature Research Communities (Smallegange & Lucas 2024), at the From Newcastle University blog, and Press Release.
- Rademaker et al. 2024 highlighted in a Research Highlight in *Journal of Animal Ecology* by Touzot & Paniw (2024), with 'Behind the paper' blog post at Animal Ecology in Focus; and Smallegange et al. (2017) highlighted in 2018 *Methods in Ecology and Evolution* Virtual Issue Integrating Ecology and Evolution. My manta018
- My work has informed conservation policy, including marine protected area designation for manta rays (Mozambique, 2016) (see also my Human Odyssey Podcast (2020)), contributions to the IUCN Marine Turtle Specialist Group global assessment (2021), and is adopted by international research consortia to predict population responses to anthropogenic stressors (DISCAR).

- Press commentary: Radio New Zealand, CTV News, Canada, CNN 'Human monogamy in mammalian context' (2025). Volkskrant 'WILD IDEE - Ontstaan diersoorten juist sneller buiten de soortenrijke tropen?' (2021);

Selected Publications

For the full list of 69 publications, see *Appendix: Full Publication List*
(*† denotes co-senior author; * indicates corresponding author*)

Theoretical & Conceptual Innovation

- **Smallegange IM**, & Guenther A. 2025. A development-centric perspective on pace-of-life syndromes. *Evolution Letters* 9: 172–183.
  → Advances theory linking energetics, life-history evolution, and developmental feedbacks.
- **Smallegange IM**. 2022. Integrating developmental plasticity into eco-evolutionary population dynamics. *Trends in Ecology & Evolution* 37: 1095–1105.
  → Solo-authored synthesis reframing development as a causal eco-evolutionary process.
- **Smallegange IM**, & Coulson T. 2013. Towards a general, population-level understanding of eco-evolutionary change. *Trends in Ecology & Evolution* 28: 143–148.
  → Established the integration of demography into eco-evolutionary theory.

Tests of the Role of Plasticity in Ecology and Evolution

- Lucas S, Berggren P, Barrowclift E, **Smallegange IM***. 2025. Changing feeding levels reveal plasticity in elasmobranch life history strategies. *Ecology Letters* 28: e70201
  → Reveals previously unrecognised life-history plasticity in sharks, skates and rays, informing conservation strategies.
- Stewart KAS, **Smallegange IM***. 2025. Developmental plasticity and the evolutionary rescue of a colonising mite. *Evolution & Development* 27: e70002.
  → Experimental evidence of developmental plasticity enabling population persistence.
- Deere JA, **Smallegange IM***. 2023. Individual differences in developmental trajectory leave a male polyphenic signature in bulb mite populations. *Peer Community Journal* 3: e117.
  → Demonstrates developmental path dependence and tests competing evolutionary hypotheses.

Linking Development, Demography and Environmental Change

- **Smallegange IM**, Edwards LHA, Attle A. 2025. Population performance and resilience in polychaetes as environmental indicators of estuarine ecosystems. In: Estuaries - Dynamic Ecosystems at the Land-Sea Interface (Ed. Pereira L). Rijeka: InTechOpen.
  → Applies developmentally informed demographic approaches to assess resilience in marine indicator species, providing tools for estuarine ecosystem monitoring and management.
- Rademaker M, van Leeuwen A, **Smallegange IM**. 2024. Why we cannot always expect life-history strategies to directly inform on sensitivity to environmental change. *Journal of Animal Ecology* 93: 348–366.
  → Challenges trait-based demographic generalisations using developmentally explicit fish data.
- **Smallegange IM**, Caswell H, Toorians MEM, de Roos AM. 2017. Mechanistic description of population dynamics using dynamic energy budget theory incorporated into integral projection models. *Methods in Ecology and Evolution* 8: 146–154.
  → Introduced a method integrating developmental energetics into demographic modelling.

Open Science & Research Infrastructure

- **Smallegange IM**, Lucas S. 2024. DEBBIES Dataset to study life histories across ectotherms. *Scientific Data* 11: 153.
  → An open-access dataset and code package now used internationally to model life-histories.

Appendix: Full Publication List

(i) invited contribution (10x); BSc, MSc and PhD students are underlined;
* corresponding author; § shared first authorship; ** shared senior authorship

69 (i) **Smallegange IM**, Pilakouta N. 2025. Linking the causes and consequences of phenotypic plasticity. *Functional Ecology* 39: 2944-2948.

68 Lucas S*, Berggren P, Barrowclift E, **Smallegange IM***. 2025. Changing feeding levels reveal plasticity in elasmobranch life history strategies. *Ecology Letters* 28: e70201

67 Speakman CN, Bull S, Cubaynes S, Davis K, Devillard S, Fryxell J, Gallagher CA, McHuron EA, Rastello K, **Smallegange IM**, Salguero-Gómez R, Bonnaud E, Duchamp C, Giraudoux P, Lacombe S, Marneweck C, Schroll L, Tableau A, Ruette S, Gimenez O. 2025. Understanding and predicting population response to anthropogenic disturbance: Current approaches and novel opportunities. *Ecology Letters* 28: e70198

66 (i) **Smallegange IM**, Edwards LHA, Attle A. 2025. Population performance and resilience in polychaetes as environmental indicators of estuarine ecosystems. In: Estuaries - Dynamic Ecosystems at the Land-Sea Interface (Ed. Pereira L). Rijeka: InTechOpen. DOI: 10.5772/intechopen.1011169

65 Stevenson EA, Lucas S, McGowan PJK, **Smallegange IM****, Mair L**. 2025. To what extent can life history strategies inform species conservation potential? *Ecology and Evolution* 15: e71488

64 Edwards LHA, **Smallegange IM**. 2025. The role of developmental plasticity in eco-phenotypic population dynamics. *Functional Ecology* 39: 2985-2998

63 Stewart KAS, **Smallegange IM***. 2025. Developmental plasticity and the evolutionary rescue of a colonising mite. *Evolution & Development* 27:e70002

62 **Smallegange IM**, Guenther A. 2025. A development-centric perspective on pace-of-life syndromes. *Evolution Letters* 9: 172-183.

61 Toorians MEM, **Smallegange IM**, Davies TJ. 2024. Host community structure can shape pathogen outbreak dynamics through a phylogenetic dilution effect. *Functional Ecology* 38: 2169-2183.

60 **Smallegange IM**, Lucas S. 2024. DEBBIES Dataset to study life histories across ectotherms. *Scientific Data* 11: 153.

59 Rademaker M, van Leeuwen A**, **Smallegange IM****. 2024. Why we cannot always expect life history strategies to directly inform on sensitivity to environmental change. *Journal of Animal Ecology* 93: 348-366.

58 Eustache KB, van Loon E, Rummer J, Planes S, **Smallegange I**. 2024. Spatial and temporal analysis of juvenile blacktip reef sharks (*Carcharhinus melanopterus*) demographics identifies critical habitats. *Journal of Fish Biology* 104: 92-103.

57 Deere JA, **Smallegange IM§***. 2023. Individual differences in developmental trajectory leave a male polyphenic signature in bulb mite populations. *Peer Community Journal* 3: e117.

56 Rhebergen FT, Stewart KAS, **Smallegange IM***. 2022. Nutrient-dependent allometric plasticity in a male-diphenic mite. *Ecology and Evolution*. 12: e9145

55 Zweerus NL, van Wijk M, **Smallegange IM**, Groot AT. 2022. Mating status affects female choice when females are signallers. *Ecology and Evolution* 12: e8864

54 **Smallegange IM**. 2022. Integrating developmental plasticity into eco-evolutionary population dynamics. *Trends in Ecology & Evolution* 37:129-137

53 Zeeman AN, **Smallegange IM**, Burdfield Steel E, Groot AT, Stewart KA. 2022. Toward an understanding of the chemical ecology of alternative reproductive tactics in the bulb mite (*Rhizoglyphus robini*). *BMC Ecology & Evolution* 22:5.

52 Rademaker M, **Smallegange IM**, van Leeuwen A. 2021. Causal links between North Sea fish biomass trends and seabed structure. *Marine Ecology Progress Series* 677: 129-141.

51 Domínguez R, Vázquez E, **Smallegange IM**, Woodin SA, Wethey DS, Peteiro LG, Olabarria C. 2021. Predation risk increases in estuarine bivalves stressed by low salinity. *Marine Biology* 168:132

50 Deere JA, van den Berg I, Roth G, **Smallegange IM**. 2021. A modelling exercise to show why population models should incorporate distinct life histories of dispersers. *Population Ecology* 63: 134-144.

49 (i) **Smallegange IM**, Flotats Avilés M, Eustache K. 2020. Unusually paced life history strategies of marine megafauna drive atypical sensitivities to environmental variability. *Frontiers in Marine Science* 7:597492

48 (i) **Smallegange IM**[*§], Rhebergen FT[§], Stewart KA. 2019. Cross-level considerations for explaining selection pressures and the maintenance of genetic variation in condition-dependent male morphs. *Current Opinion in Insect Science* 36: 66-73.

47 **Smallegange IM**, Berg M. 2019. A functional trait approach to identifying life history patterns in stochastic environments. *Ecology and Evolution* 9: 9350-9361

46 van den Beuken TPG, Stockwell L, **Smallegange IM**. 2019. *Et tu*, brother? Kinship and increased nutrition lower cannibalism incidence in male bulb mites. *Animal Behaviour* 152: 45-52

45 Stewart KA, Draaijer R, Kolasa MR, **Smallegange IM**. 2019. The role of genetic diversity in the evolution and maintenance of environmentally-cued, male alternative reproductive tactics. *BMC Evolutionary Biology* 19:58

44 van den Beuken TPG, Duinmeijer CC, **Smallegange IM**. 2019. Costs of weaponry: unarmed males sire more offspring than armed males in a male-dimorphic mite. *Journal of Evolutionary Biology* 32: 153-162

43 (i) Croll JC, Egas M, **Smallegange[*] IM**. 2019. An eco-evolutionary feedback loop between population dynamics and fighter expression affects the evolution of alternative reproductive tactics. *Journal of Animal Ecology* 88: 11-23.

42 van den Beuken TPG, **Smallegange IM**. 2018. Life-history consequences of bidirectional selection for male morph in a male-dimorpic bulb mite. *Experimental and Applied Acarology* 76: 435-452

41 van den Beuken, TPG, **Smallegange IM**. 2018. Life history consequences of nutritional history in a male dimorphic mite: evidence for a nuptial gift? *Evolutionary Ecology* 32: 411-425

40 Stewart KA, van den Beuken TPG, Rhebergen FT, Deere JA, **Smallegange IM**. 2018. Evidence for a third male type in a male-dimorphic model species. *Ecology* 99: 1685-1687

39 (i) **Smallegange IM**, Ens HM. 2018. Trait-based predictions and responses from laboratory mite populations to harvesting in stochastic environments. *Journal of Animal Ecology* 87: 893-905

38 (i) Hamel S, Yoccoz NG, Gaillard J-M, Bassar RD, Bouwhuis S, Caswell H, Douhard M, Gangloff EJ, Gimenez O, Lee PC, **Smallegange IM**, Steiner UK, Vedder O, Vindenes Y. 2018. General conclusion to the special issue Moving forward on individual heterogeneity. *Oikos* 127: 750-756

37 (i) **Smallegange IM**, Fernandes RE, Croll JC. 2018. Population consequences of individual heterogeneity in life histories: overcompensation in response to harvesting of alternative reproductive tactics. *Oikos* 127: 738-749.

36 Deere JA, Coulson T, Cubaynes S, **Smallegange IM**. 2017. Unsuccessful dispersal affects life history characteristics of natal populations: The role of dispersal related variation in vital rates. *Ecological Modelling* 366: 37-47.

35 **Smallegange IM**, Caswell H, Toorians MEM, de Roos AM. 2017. Mechanistic description of population dynamics using dynamic energy budget theory incorporated into integral projection models. *Methods in Ecology and Evolution* 8: 146-154.

34 **Smallegange IM**, van der Ouderaa IBC, Tibiriça Y. 2016. The effect of yearling, juvenile and adult survival on reef manta ray (*Manta alfredi*) demography. *PeerJ* 4:e2370.

33 (i) **Smallegange IM**. 2016. Life History Trade-offs. In: Kliman, R.M. (ed.), Encyclopedia of Evolutionary Biology. Vol. 2, pp. 390–393. Oxford: Academic Press.

32 Deere JA, Coulson T, **Smallegange IM**. 2015. Life history consequences of the facultative expression of a dispersal life stage in the phoretic bulb mite (*Rhizoglyphus robini*). *PLoS ONE* 10(9): e0136872.

31 **Smallegange IM**, Egas, CJM. 2015. Good for the group? Explaining apparent group-level selection. *Trends in Ecology & Evolution* 30: 379-381

30 (i) **Smallegange IM**, Deere JA. 2014. Eco-evolutionary interactions as a consequence of selection on a secondary sexual trait. *Advances in Ecological Research* 50: 145-169.

29 Leigh DM, **Smallegange IM**. 2014. Effects of variation in nutrition on male morph development in the bulb mite *Rhizoglyphus robini*. *Experimental and Applied Acarology* 64: 159-170.

28 **Smallegange IM**, Deere JA, Coulson T. 2014. Correlative changes in life-history variables in response to environmental change in a model organism. *American Naturalist* 186: 784-797.

27 Deere JA, **Smallegange IM**. 2014. Does frequency-dependence determine male morph survival in the bulb mite, *Rhizoglyphus robini*? *Experimental and Applied Acarology* 62: 425-436.

26 **Smallegange IM**, Johansson J. 2014. Life history differences favour evolution of male dimorphism in competitive games. *American Naturalist* 183: 188-198.

25 **Smallegange IM**, Coulson T. 2013. Towards a general, population-level understanding of eco-evolutionary change. *Trends in Ecology & Evolution* 28: 143-148.

24 Johansson J, **Smallegange IM**, Jonzén N. 2012. An eco-evolutionary model for demographic and phenological responses in migratory birds. *Biology* 1: 639-657.

23 **Smallegange IM**, Charalambous M, Thorne N. 2012. Fitness trade-offs and the maintenance of alternative male morphs in the bulb mite (*Rhizoglyphus robini*). *Journal of Evolutionary Biology* 25:972-980.

22 **Smallegange IM**, Coulson T. 2011. The stochastic demography of two coexisting male morphs. *Ecology* 92:755-764.

21 **Smallegange IM**. 2011. Complex environmental effects on the expression of alternative reproductive phenotypes in the bulb mite. *Evolutionary Ecology* 25: 857-873.

20 **Smallegange IM**. 2011. Effects of paternal phenotype and environmental variability on age and size at maturity in a male dimorphic mite. *Naturwissenschaften* 98: 339-346.

19 Godsall B, **Smallegange IM**. 2011. Assessment games in the mangrove tree-dwelling crab, *Selatium brockii* (De Man, 1887). *Crustaceana* 84: 1697-1718.

18 **Smallegange IM**, van der Meer J, Fiedler W. 2011. Population dynamics of three songbird species in a nestbox population in Central Europe show effects of density, climate and competitive interactions. *Ibis* 153: 806-817.

17 **Smallegange IM**, van der Meer J, Sabelis MW. 2010. 'Take-away' foraging spatially uncouples predator and prey-attack distributions. *Journal of Animal Ecology* 79: 769-776.

16 **Smallegange IM**, van der Meer J. 2010. Testing a stochastic version of the Beddington-DeAngelis functional response in foraging shore crabs. *Marine Biology* 157: 1027-1040.

15 **Smallegange IM**, Fiedler W, Köppen U, Geiter O, Barlein F. 2010. Tits on the move: exploring the impact of environmental change on blue tit and great tit migration distance. *Journal of Animal Ecology* 79: 350-357.

14 [i] **Smallegange IM**, Coulson T. 2009. Unifying ecological and evolutionary dynamics through experimental stochastic demography. *Israel Journal of Ecology and Evolution* 55: 199-205.

13 **Smallegange IM**, van Noordwijk CGE, van der Meer J, van der Veer HW. 2009. Spatial distribution of shore crab *Carcinus maenas* in an intertidal environment in relation to their morphology, prey availability and competition. *Marine Ecology Progress Series* 392: 143-155.

12 **Smallegange IM**, van der Meer J. 2009. The distribution of unequal predators across food patches is not necessarily (semi)truncated. *Behavioral Ecology* 20: 525-534.

11 van der Meer J, **Smallegange IM**. 2009. A stochastic version of the Beddington-DeAngelis functional response: modelling interference for a finite number of predators. *Journal of Animal Ecology* 78: 134-142.

10 **Smallegange IM**, Hidding B, Eppenga JMA, van der Meer J. 2008. Optimal foraging and risk of claw damage: how flexible are shore crabs in their prey size selectivity? *Journal of Experimental Marine Biology and Ecology* 367: 157-163.

9 **Smallegange IM**, Tregenza T. 2008. Local competition between foraging relatives: growth and survival of bruchid beetle larvae. *Journal of Insect Behavior* 21: 375-386.

8 **Smallegange IM**, van der Meer J. 2007. Interference from a game theoretical perspective: shore crabs suffer most from equal competitors. *Behavioral Ecology* 18: 215-221.

7 **Smallegange IM**, Sabelis MW, van der Meer J. 2007. Assessment games in shore crab fights. *Journal of Experimental Marine Biology and Ecology* 351: 255-266.

6 **Smallegange IM**, van der Meer J, Kurvers RHJM. 2006. Disentangling interference competition from exploitative competition in a crab-bivalve system using a novel experimental approach. *Oikos* 113: 157-167.

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4 Riebel K, **Smallegange IM.** 2003. Does zebra finch (*Taeniopygia guttata*) preference for the (familiar) father's song generalize to the songs of unfamiliar brothers? *Journal of Comparative Psychology* 117: 61-66.

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