**Curriculum Vitae****

**PERSONAL INFORMATION**

Family name, First name: **Nixon, Casey William**

Date of birth: ***25.04.1988***

Sex: **Male**

Nationality: **United Kingdom**

URL for personal web site: http://www.uib.no/en/persons/Casey.Nixon

**CURRENT AND PREVIOUS POSITIONS**

*2015-Present* **Vista Scholar** – Norwegian Academy of Science and Letters

Department of Earth Science, University of Bergen, Norway

*2015-Present* **Visiting Fellow**

Ocean and Earth Sciences, University of Southampton, UK

*2014-2015* **Teaching and Research Fellow**

Ocean and Earth Sciences, University of Southampton, UK

*2013-2014* **Postdoctoral Research Fellow**

Ocean and Earth Sciences, University of Southampton, UK

**EDUCATION**

*2013* PhD: **Analysis of fault networks and conjugate systems** Disputation date:***05.03.2013****.*

Ocean and Earth Sciences, University of Southampton, UK

Supervisors: Prof David Sanderson & Prof Jonathan Bull

*2009* BSc Hons Degree in Geology 1st

School of Geosciences, University of Edinburgh, UK

**AWARDS, ACHEIVEMENTS AND PRIZES**

*2017-2019* **Invited Member of the Science Party for IODP Expedition** **381**: Corinth Active Rift Development, managed by ECORD Science Operator

*2015-2018* **Awarded VISTA Scholarship** and associated research funding (**2,812,000 NOK**)

*2014-2018* **Successful IODP Full Proposal** for drilling offshore Corinth Rift – Scheduled for Oct 2017

*2015* **Awarded mobility funds from the Akademia Agreement** between Statoil and University of Bergen (**50,000 NOK**)

*2009-2013* **NERC Case Studentship** **(PhD)**: University of Southampton, UK

*2011* **Outstanding Student Paper Award,** Hydrology Section, American Geophysical Union Fall Meeting

*2011* **Winner of the Shell Award,** Tectonic Studies Group, Geological Society of London

*2011* **Winner of the Mike Coward Prize,** Tectonic Studies Group, Geological Society of London

*2009*  **Awarded a NERC funded PhD with a CASE Studentship**, University of Southampton

*2009* **Awarded** **University of Edinburgh Laidlaw-Hall Trust** **funding,** University of Edinburgh

*2008* **Total Oil Marine Prize,** University of Edinburgh

*2007* **Class Medal Award** for Mineralogy and Petrology, University of Edinburgh

**CURRENT RESEARCH PROJECTS**

***‘Topology of Normal Fault Networks in Rift Basins’*** funding: VISTA, Norwegian Academy of Science and Letters (2015-2018); **Main Institutes**: University of Bergen, University of Southampton, Manchester University, Imperial College London; 7 Participants

***‘******An Integrated Geological and Mathematical Framework for the Characterization, Modelling and Simulation of Fractured Geothermal Reservoirs (ANIGMA)’*** funding: ENERGIX Program, Research Council of Norway (2015-2019); **Main Institutes:** University of Bergen, UniResearch CIPR, University of Southampton; 11 Participants.

***‘Drilling the Corinth Rift: Resolving the detail of active rift development’*** IODP Full Proposal (2014-2018); **Main Institutes:** University of Southampton, University of Exeter, Imperial College London, University of Leeds, University of Bergen, University of Patras, Universite de Lorraine, Hellenic Centre for Marine Research (HCMR), plus 10 others; 27 Participants.

**TEACHING ACTIVITIES**

*2016*  **Temporary Associate Professor** – University of Bergen, Norway

*Courses:* GEOV105: Introduction to historical geology and palaeontology

# *2014-2015* **Teaching and Research Fellow** – University of Southampton, UK

# *Courses*: SOES2033: Structural geology, SOES2033: GIS and remote sensing, SOES2034: Key skills and fieldwork for geologists, SOES1003 IT communication, field & laboratory skills

***PhD Supervision***

*2015-Present* **Melanie Siegburg, PhD candidate**, University of Southampton, UK: *“Tectono-magmatic activity at the Boset-Bericha Volcanic Complex in the Main Ethiopian Rift”*

Supervisors: T.M. Gernon, J.M. Bull, D. Keir, **C.W. Nixon**, R.N. Taylor

***Masters Supervision***

*2017-Present* ***F. Wyller,***  *“Spatial and temporal development of joint networks and associated network properties” Master of Geology, University of Bergen, Norway*

*2017-Present* ***M. Krabbendam,*** *“Integrated 4D tectono-stratigraphic evolution of the northern Peloponnese margin and the Gulf of Corinth, Greece” Master of Geology, University of Bergen, Norway*

*2015-2017* **S. Vaagan**, *“Distribution of deformation associated with relay and tip damage zones of normal faults – a case study from Kilve, UK”* Master of Basin and Reservoir Studies, University of Bergen, Norway

*2015-2017* **E. Wiese**, *“Influence of pre-existing structures on the development of normal fault networks in the Browse Basin, NW Australia”* Master of Basin and Reservoir Studies, University of Bergen, Norway

*2014-2016* **K. Nærland**, *“Topology of normal fault damage zones in carbonate rocks, Malta – implications for the development of connectivity in evolving fault networks”* Master of Petroleum Geoscience, University of Bergen, Norway

## *2014-2016* **S. Sletten**, *“Normal fault growth and fault zone architecture of normal faults exposed in the Corinth Canal, central Greece”* Master of Petroleum Geoscience, University of Bergen, Norway

*2014-2015* **L. Collins**, *“Investigating the distribution of faulting and extension in the Corinth Canal, Greece”* Msci Geophysics research project, University of Southampton, UK

*2013-2014* **A. Moyle**, *“A comprehensive analysis of the distribution of displacement across the Corinth rift, Greece”* Msci Geology research project, University of Southampton, UK

*2013-2014* **L. Turner**, *“Mapping of the Dabbahu Rift and theories on fault structure and growth”* Msci Geophysics research project, University of Southampton, UK

**ORGANISATION OF SCIENTIFIC MEETINGS**

*2015* Lead Convener - **Topology and Fluid Flow: Workshop**, 22 participants, University of Bergen, Norway

*2014* Co*-*Convener - **IODP Ocean Drilling Within the Corinth Rift, Greece: Megellan Meeting**, 36 participants, Hellenic Centre for Marine Research, Greece

**POSITIONS OF RESPONSIBILITY**

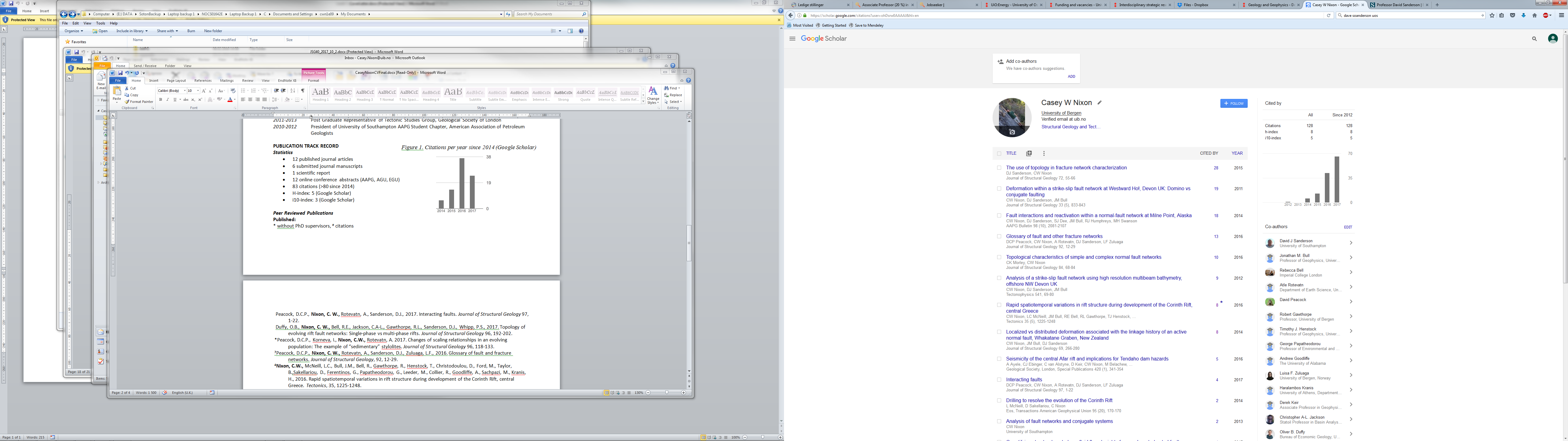
*2017-2019* Member of Science Party on IODP Expedition 381 managed by ECORD Science Operators

*2011-2013* Post Graduate Representative of Tectonic Studies Group, Geological Society of London

*2010-2012* President of University of Southampton AAPG Student Chapter, American Association of Petroleum Geologists

**PUBLICATION TRACK RECORD**

*Citations per year since 2014 (Google Scholar)*

***Statistics***

* 13 published journal articles
* 8 submitted journal manuscripts
* 1 scientific report
* 1 PhD Thesis
* 12 online conference abstracts (AAPG, AGU, EGU)
* 128 citations (>125 since 2014)
* H-index: 8 (Google Scholar)
* i10-index: 5 (Google Scholar)

***Peer Reviewed Publications***

**Published:**

# citations

1Dimmen, V., Rotevatn, R., Peacock, D.C.P., **Nixon, C.W.,** Nærland, K., 2017. Quantifying structural controls on fluid flow: insights from carbonate-hosted fault damage zones on the Maltese Islands. *Journal of Structural Geology* 101, 43-57.

4Peacock, D.C.P., **Nixon, C. W.,** Rotevatn, A., Sanderson, D.J., 2017. Interacting faults. *Journal of Structural Geology* 97, 1-22.

1Duffy, O.B., **Nixon, C. W.,** Bell, R.E., Jackson, C.A-L., Gawthorpe, R.L., Sanderson, D.J., Whipp, P.S., 2017. Topology of evolving rift fault networks: Single-phase vs multi-phase rifts. *Journal of Structural Geology* 96, 192-202.

Peacock, D.C.P., Korneva, I., **Nixon, C.W.,** Rotevatn, A. 2017. Changes of scaling relationships in an evolving population: The example of “sedimentary” stylolites. *Journal of Structural Geology* 96, 118-133.

**13**Peacock, D.C.P., **Nixon, C. W.,** Rotevatn, A., Sanderson, D.J., Zuluaga, L.F., 2016. Glossary of fault and fracture networks. *Journal of Structural Geology*, 92, 12-29.

**8Nixon, C.W.,** McNeill, L.C., Bull, J.M., Bell, R., Gawthorpe, R., Henstock, T., Christodoulou, D., Ford, M., Taylor, B.,Sakellariou, D., Ferentinos, G., Papatheodorou, G., Leeder, M., Collier, R., Goodliffe, A., Sachpazi, M., Kranis, H., 2016. Rapid spatiotemporal variations in rift structure during development of the Corinth Rift, central Greece. *Tectonics*, 35, 1225-1248.

**10**Morley, C.K. & **Nixon, C.W.,** 2016.Topological characteristics of simple and complex normal fault networks. *Journal of Structural Geology*, 84, 68-84.

**5**Ayele, A., Ebinger, C.J., van Alstyne, C., Keir, D., **Nixon, C.W.,** Belachew, M., Hammond, J.O.S, 2015. Seismicity and the Tendaho Dam safety, Afar (Ethiopia): risk implications for downstream population. *Geol. Soc. London. Spec. Publ*., 420.

**28**Sanderson, D.J. & **Nixon, C.W.,** 2015. The use of topology in fracture network characterization. *Journal of Structural Geology*, 72, 55-66.

**2**McNeill, L.C., Sakellariou, D., **Nixon, C.W.,** 2014. Drilling to resolve the evolution of the Corinth Rift. *Eos Transactions*. 29, 170.

**8Nixon, C.W.,** Sanderson, D.J., Bull, J.M., 2014. Localized vs distributed deformation associated with an active normal fault, Whakatane, New Zealand. Journal of Structural Geology 69, 266-280.

**18Nixon, C.W.,** Sanderson, D.J., Dee, S., Bull, J.M., Humphreys, R., Swanson, M., 2014. Fault interactions and reactivation within a normal fault network at Milne Point, Alaska. *AAPG Bulletin*. 98(10), 2081-2107.

**9Nixon, C.W.,** Sanderson, D.J., Bull, J.M. 2012. Analysis of a strike-slip fault network using high resolution multibeam bathymetry, offshore NW Devon U.K.. *Tectonophysics*, 541-543, 69-80.

**19Nixon, C.W.,** Sanderson, D.J., Bull, J.M. 2011. Deformation within a strike-slip fault network at Westward Ho!,Devon U.K.: Domino vs conjugate faulting. *Journal of Structural Geology*, 33, 833-843.

**Submitted:**

**Nixon, C.W.,** Vaagan, S., Sanderson, D.J., Gawthorpe, R.L., In Review. Spatial distribution of damage and strain within a relay, Kilve U.K.. *Journal of Structural Geology.*

Sanderson, D.J., Peacock, D.C.P., Rotevatn, R., **Nixon, C.W.,** In Review. Fracture Networks: Back to the Future. *Journal of Structural Geology.*

Bell, R.E., Duclaux, G., **Nixon, C.W.,** Gawthorpe, R.L., McNeill, L.C., In Revison. High-angle faults control the

geometry and morphology of the Corinth Rift. *Geology.*

Nyberg, B., **Nixon, C.W.,** Sanderson, D.J., In Review. NetworkGT: A GIS tool for the geometric and topological analysis of fracture networks. *Geosphere*.

Sævik, P. & **Nixon, C.W.,** In Revision. Effective permeability of fractured rock from topological measurements. *Water Resources Research*.

**Nixon, C.W.,** Sanderson, D.J., Putz-Perrier, M.W., Bull, J.M., In Revision. Variations in the contribution of seismically unresolvable faults to extension in the Earth’s upper crust. *Geology*.

Sanderson, D.J. & **Nixon, C.W.,** In Revision. Topology, connectivity and percolation in fracture networks, *Journal of Structural Geology*.

Hall, T., **Nixon, C.W.,** Keir, D., Ayele, A., Burton, P., In Revision. Earthquake clustering and seismic hazard of the African-Arabian rift system. *Bulletin of Seismological Society of America*.

**CONFERENCES AND INVITED TALKS**

***Record of Presenting at International Conferences:***

*American Geophysical Union General Assembly:* ***2011, 2012, 2013, 2014, 2017***

*Tectonic Studies Group Annual Meeting:* ***2010, 2011, 2012, 2014, 2016***

*European Geophysical Union General Assembly:* ***2013, 2015***

*AAPG Convention Exhibition:* ***2016***

*European Geothermal Congress:* ***2016***

*Geometry and Growth of Normal Faults, Geological Society, London:* ***2014***

***Invited Talks***

*2016* Invited lecture on an international short course on development of deep geothermal resources at the European Geothermal Congress

‘*Characterization, modelling and simulation of fractured reservoirs’*

*2014*Invited talk for the Basin Research Group seminar series at Imperial College London

‘*Localization of deformation within rifts – from rift architecture to fault networks*’

*2013*Invited talk for the Structural Geology COP talk series at BP Exploration, Sunbury.

‘*Characterising the deformation within fault networks*’

**MEMBERSHIPS AND OTHER QUALIFICATIONS**

American Association of Petroleum Geologists, American Geophysical Union, European Geophysical Union,

Sea Survival Certificate, Full Driver’s License