



## Alice Webb

### CIVIL STATE

33 years old

PhD

British and French nationality

International driving license

### CONTACT

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2201 Brickell Ave  
33129 Miami

### LANGUAGES

Bilingual French and English  
Dutch: Working knowledge

### COMPUTER SKILLS

Proficient at MS Office applications (including Access)

R software: proficient

Matlab: good working knowledge

Image J, CPCe, ArcGIS

Adobe Illustrator  
Photoshop

### RELEVANT SKILLS

Rescue diver PADI  
Sport's diver Bsac  
~350 Scientific dives

## Profile

My research integrates ecological, metabolic, and biogeochemical data to understand how marine organisms interact with their environment. Specifically, I am interested in the mechanisms and rates of carbon and nitrogen cycling by benthic communities in response to global (warming and acidification) and local (eutrophication and pollutants) stressors. I use a wide range of analytical techniques combined with in situ experiments for holistic assessments of community-wide functional responses to environmental change.

## Education

**2021-** University of Miami-Cooperative Institute post-doctoral scientist

Coral reef conservation program-funded reef persistence evaluator project

**2015-2019** Royal Netherlands Institute for Sea Research | PhD student

Reef Dissolution | Rates and mechanisms of coral dissolution by bioeroding sponges and reef communities

Open access version at <http://dspace.library.uu.nl/handle/1874/384958>

**2010-2012** University of Southampton | MSc in Oceanography (2:1 equivalent)

Multiple European postgraduate degree, with the University of Bordeaux 1, the University of the Basque Country (with the AZTI Foundation and the Oceanographic Foundation of Guipuzcoa, Bilbao, Spain) and the University of Southampton. Modules have included biological, chemical and physical oceanography, computational data analysis, climate change and marine production, etc.

**2006-2010** University of St Andrews | Bsc Hons Marine Biology (2:1)

Modules have included: Cell biology and genetics, aquatic ecology, biology of marine mammal organisms, marine conservation, physiology of marine organisms, etc.

## Scientific Research cruises

**2018** Saba Bank Expedition | Carbonate Budget of Saba Bank coral reefs. Wageningen Marine Research

**2018** NICO Expedition leg 6 | Carbonate chemistry on Saba Bank reefs. Royal Netherlands Institute of Sea Research & Wageningen Marine Research

**2016** Caribbean Pelagia Expedition | Carbonate chemistry on Saba Bank coral reefs. Royal Netherlands Institute of Sea Research & Wageningen Marine Research

**2016** Baltic Sea Expedition | testing novel carbonate chemistry analytic methods. Royal Netherlands Institute of Sea Research

**2015** Saba Bank Expedition: Monitoring the status of Saba Bank coral reefs. Royal Netherlands Institute of Sea Research & Wageningen Marine Research

## FIELDWORK SKILLS

In situ incubation of reef substratum

Operating of small boat

Underwater drilling

Foraminifera catching

Aquarium set-up and maintenance

Carbon chemistry manipulation in Aquarium and incubation settings

Line transects, belt transects, quadrats

## LAB SKILLS

Total Alkalinity and DIC analyses with VINDTA

DIC analyses with AIRICA

Total Alkalinity with optical titration

Total Alkalinity titrations

pH spectrophotometry

Carbonate ion concentration with spectrophotometer

## Publications and expected publication

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**Webb, A.E.**, de Bakker, D.M., Soetaert, K., da Costa, T., van Heuven, S.M., van Duyl, F.C., Reichart, G.J. and de Nooijer, L.J. (2021). Quantifying functional consequences of habitat degradation on a Caribbean coral reef. *Biogeosciences*, 18(24), 6501-6516.

**Webb, A. E.**, Engelen, A. H., Bouwmeester, J., van Dijk, I., Geerken, E., Lattaud, J., Engelen, D., de Bakker, B.S., & de Bakker, D.M. (2021). Synchronized broadcast spawning by six invertebrates (Echinodermata and Mollusca) in the north-western Red Sea. *Marine Biology*, 168(5), 1-6.

Achlatis, M., van der Zande, R. M., **Webb, A. E.**, de Bakker, D. M., de Nooijer, L. J., & de Goeij, J. M. (2021). Photosynthetically stimulated bioerosion in symbiotic sponges: the role of glycerol and oxygen. *Coral Reefs*, 40(3), 881-891.

**Webb, A.E.**, Pomponi S.A., van Duyl F.C., Meesters E., Reichart G-J., & de Nooijer L.J. (2109) pH regulation and tissue coordination pathways promote calcium carbonate bioerosion by excavating sponges. *Scientific reports*, 9(1), 758.

de Goeyse, S., **Webb, A.E.**, Reichart, G. J., & de Nooijer, L. J. (2019). Carbonic anhydrase is involved in benthic foraminiferal calcification. *Biogeosciences Discussions*, 1-11.

**Webb, A.E.**, van Heuven S.M.A.C., de Bakker D., van Duyl F.C., Meesters E.H., Reichart G-J., & de Nooijer L.J. (2018). In-situ incubation of a coral patch for community-scale assessment of metabolic and chemical processes on a reef slope. *PeerJ*, 6, e5966.

De Bakker, D.M., **Webb, A.E.**, van den Bogaart, L.A., van Heuven, S.M.A.C., Meesters, E.H., & van Duyl, F.C. (2018). Quantification of chemical and mechanical bioerosion rates of six Caribbean excavating sponge species found on the coral reefs of Curaçao. *PloS one*, 13(5), e0197824.

**Webb, A.E.**, van Heuven S.M.A.C., de Bakker D., van Duyl F.C., Reichart G-J., & de Nooijer L.J. (2017). Combined Effects of Experimental Acidification and Eutrophication on Reef Sponge Bioerosion

**Webb, A.E.**, van Hooijdonk, R., Besemer, N., Kolodziej, G., Manzello, D.P., & Enochs, I.C. Site-specific evaluation of the impacts of local climate projections and coral adaptation on reef habitat persistence (In prep)