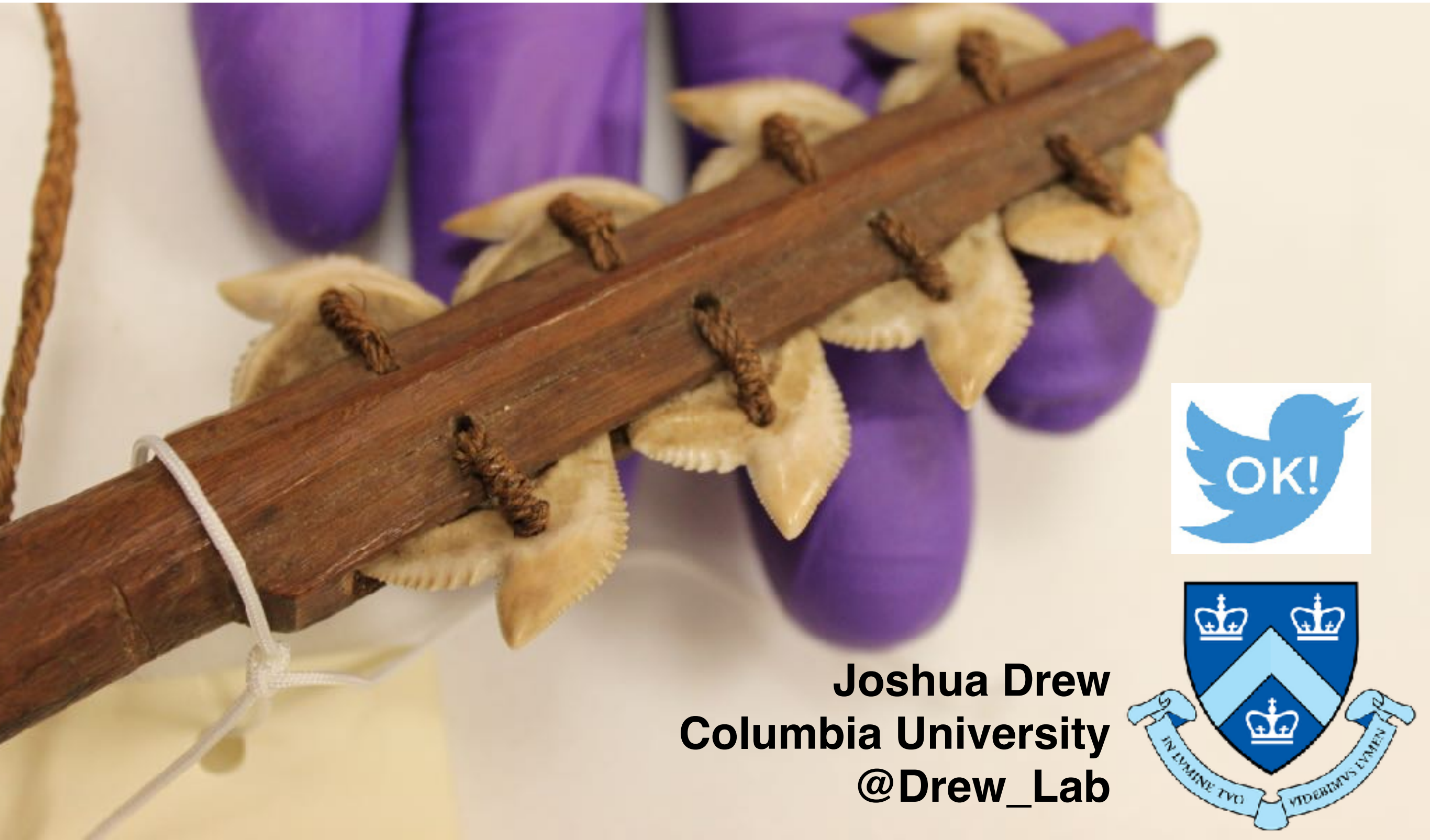


Digital Collections as Tools for Increasing Diversity



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Columbia University
@Drew_Lab





Dr. Corrie Moreau
Field Museum



Dr. Melanie Stiassny
AMNH

SHARE

PERSPECTIVE | ECOLOGY



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Avoiding (Re)extinction

Ben A. Minter¹, James P. Collins¹, Karen E. Love¹, Robert Puschendorf²

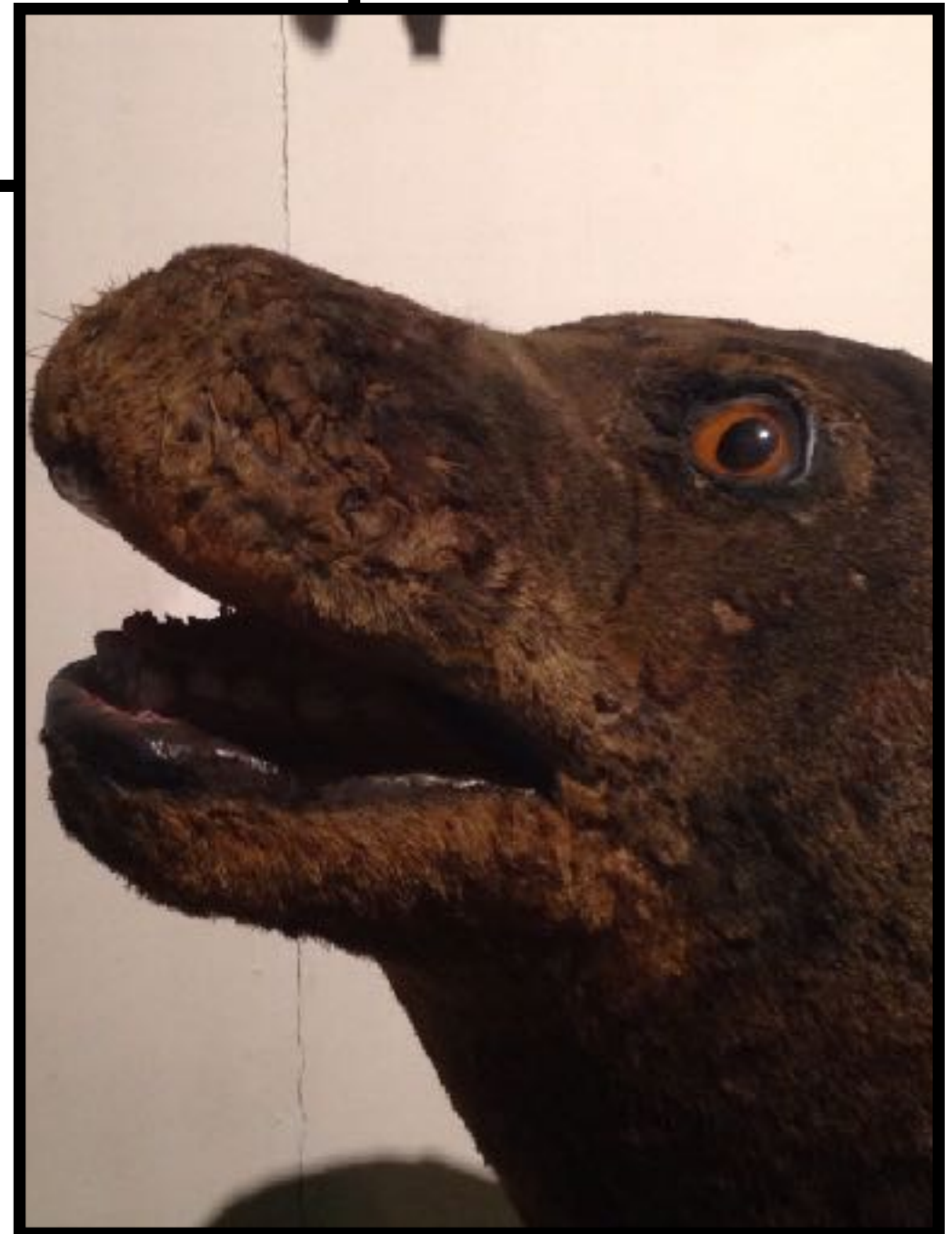
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- Hide authors and affiliations

Science 18 Apr 2014:
Vol. 344, Issue 6181, pp. 260-261
DOI: 10.1126/science.1250953



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LETTERS



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Specimen collection: An essential tool

L. A. Rocha^{1,*}, A. Aleixo², G. Allen³, F. Almeda¹, C. C. Baldwin⁴, M. V. L. Barclay⁵, J. M. Bates⁶, A. M. Bauer⁷, F....

+ See all authors and affiliations

Science 23 May 2014:
Vol. 344, Issue 6186, pp. 814-815
DOI: 10.1126/science.344.6186.814

***Collections are the
lifeblood of modern
ecology and evolution***

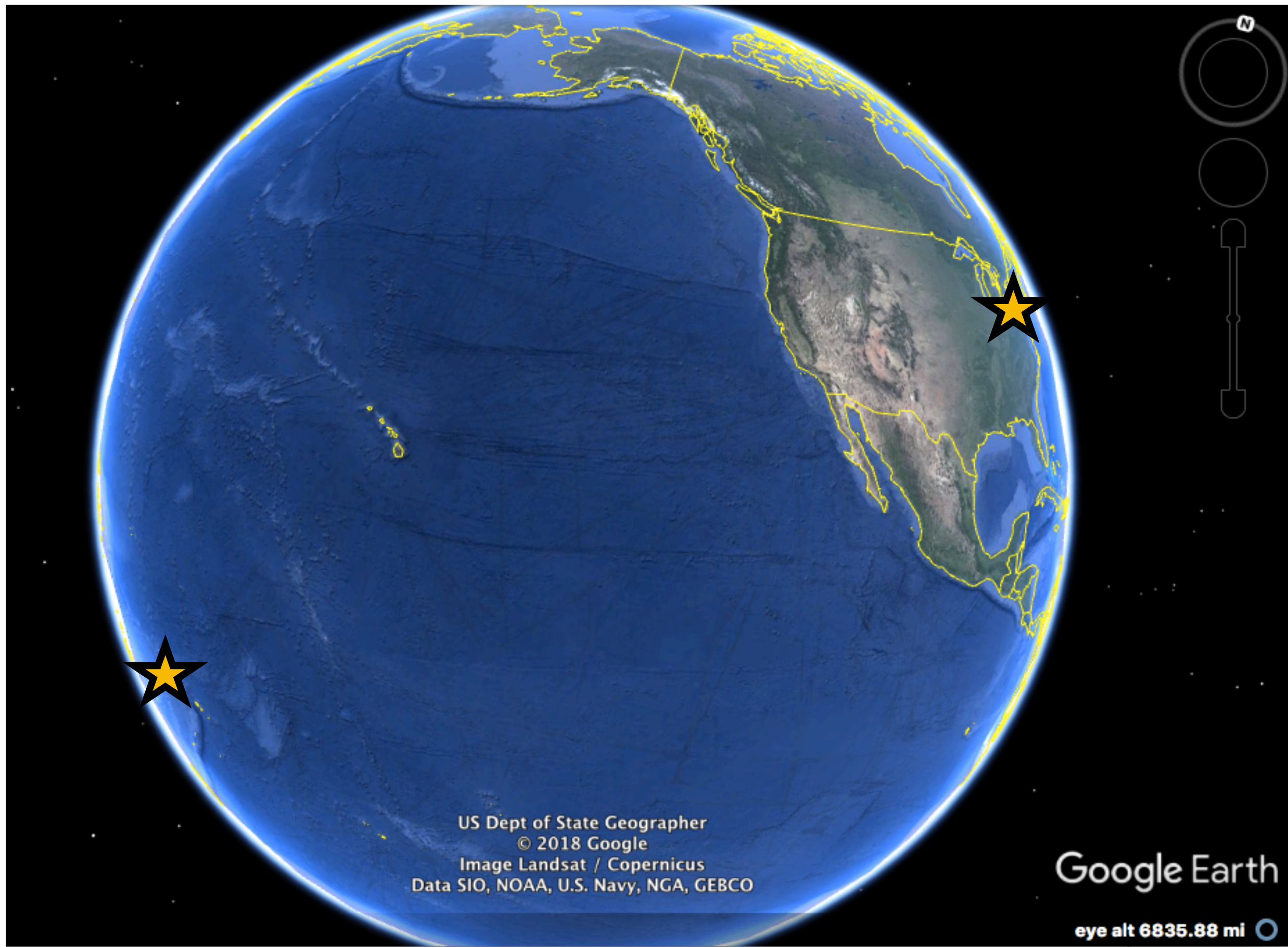


Shark Toothed Weapon - Kiribati



Pomacentrus vaiuli - Fiji









US Dept of State Geographer
© 2018 Google
Image Landsat / Copernicus
Data SIO, NOAA, U.S. Navy, NGA, GEBCO

Google Earth

eye alt 6835.88 mi

Decolonizing access to information

[Get data](#)[Share](#)[Tools](#)[Inside GBIF](#)

[Login](#)

Classification

Select a species

Kingdom **Animalia**

Phylum **Chordata**

Class **Actinopterygii**

Order **Perciformes**


Family **Pomacentridae**

Genus ***Pomacentrus* Lacépède, 1802**

Species ***Pomacentrus vaiuli* Jordan & Seale, 1906**

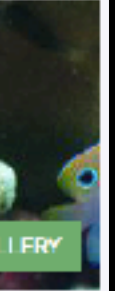



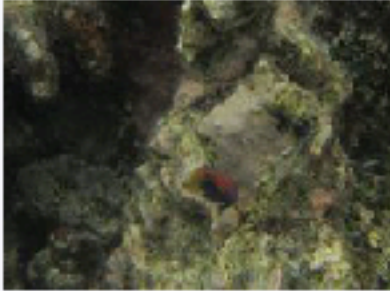
No children

Source: **Catalogue of Life**


OVERVIEW REFERENCE TAXON 

2,957 OCCURRENCES

47 OCCURRENCE RECORDS WITH IMAGES



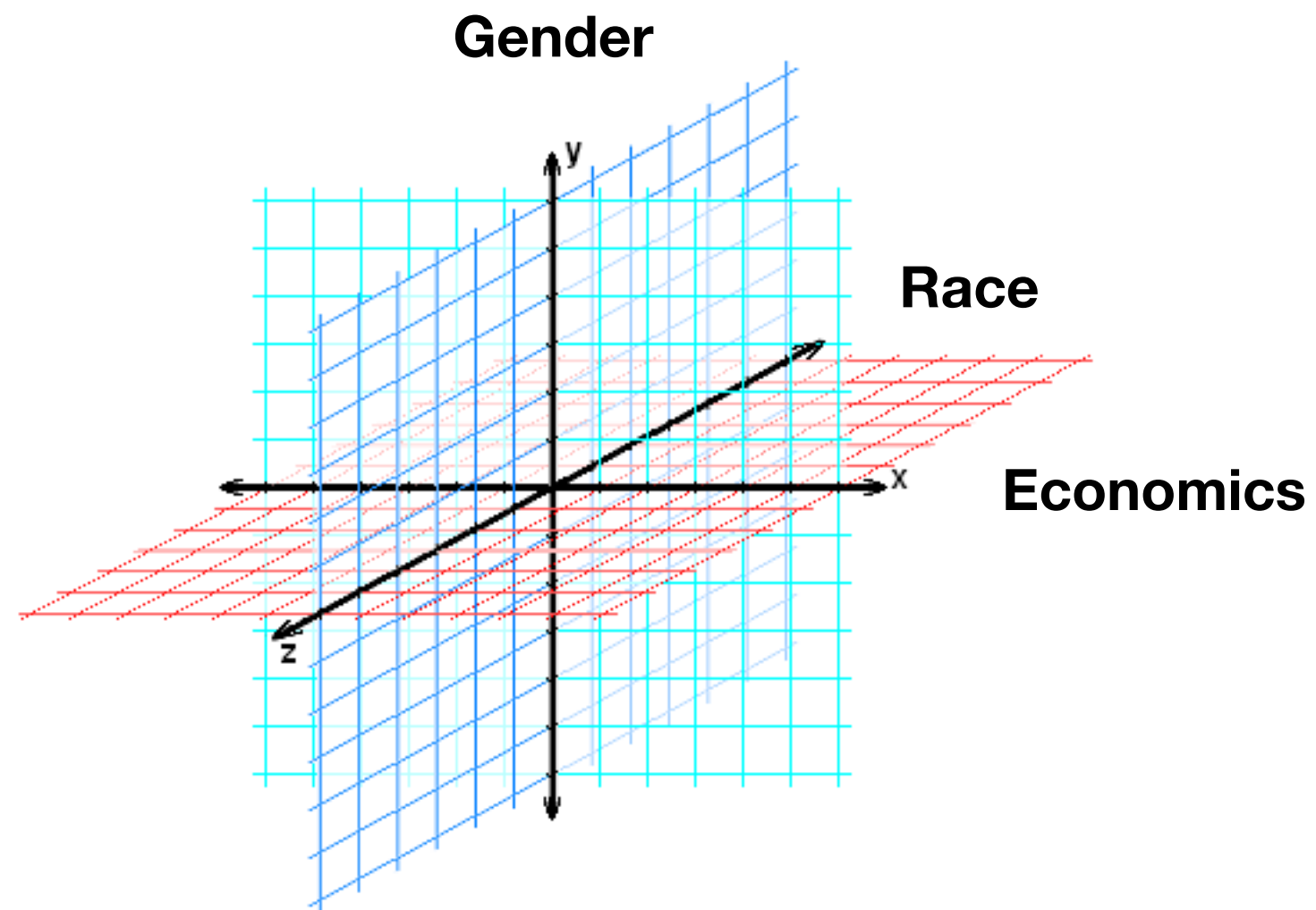
2,638 GEOREFERENCED RECORDS



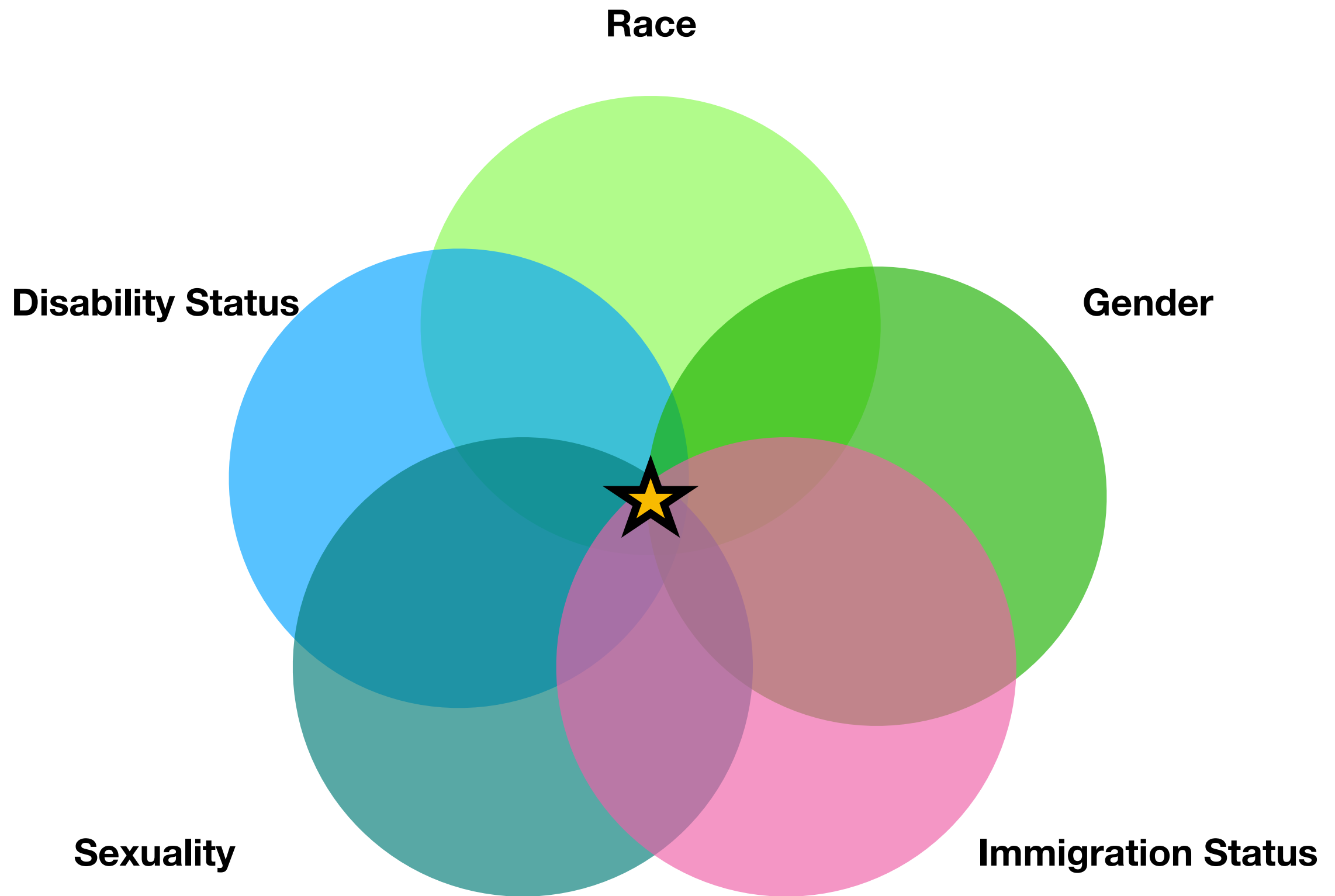
Generated an hour ago © OpenStreetMap, GBIF.



The niche: a multidimensional hyper volume



The diversity niche: intersectional space



Conference	Year	Total Organizers	% Female Organizers	Total Presenters	% Female Presenters
SCB	1999	12	25	41	26.8
SCB	2002	43	39.5	152	26.3
SCB	2006	45	28.9	157	22.9
SCB	2007	48	35.4	169	27.2
SCB	2009	49	20.4	76	23.7
SCB	2010	81	30.9	247	26.7
SCB	2011	79	31.6	242	28.1
SCB	2013	103	45.6	315	38.7
SCB	2014	40	70	152	56.6
SCB	2015	141	36.2	407	39.8
SCB	Total	641	36.4	1958	31.7
ASIH	2005	12	8.3	93	24.7
ASIH	2006	13	30.8	100	30
ASIH	2007	8	0	51	13.7
ASIH	2008	9	22.2	69	20.3
ASIH	2009	30	16.7	175	24.6
ASIH	2010	17	41.2	155	44.5
ASIH	2011	13	15.4	80	30
ASIH	2013	11	27.3	92	32.6
ASIH	2014	5	0	39	23.1
ASIH	2015	14	28.6	79	36.7
ASIH	Total	132	19.1	933	28

doi:10.1371/journal.pone.0160015.t001

RESEARCH ARTICLE

Not “Pulling up the Ladder”: Women Who Organize Conference Symposia Provide Greater Opportunities for Women to Speak at Conservation Conferences

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Conferences are not always friendly places for women

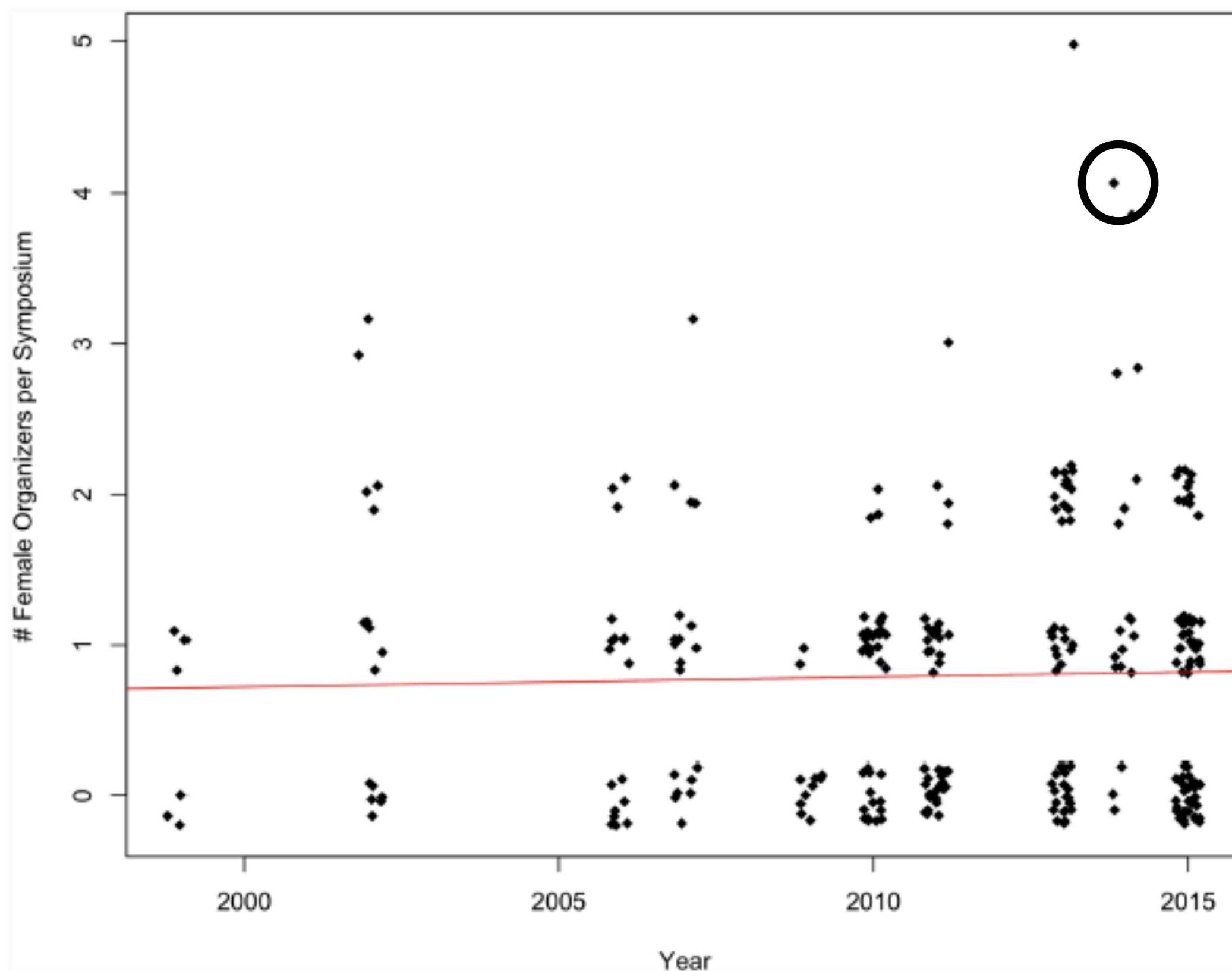


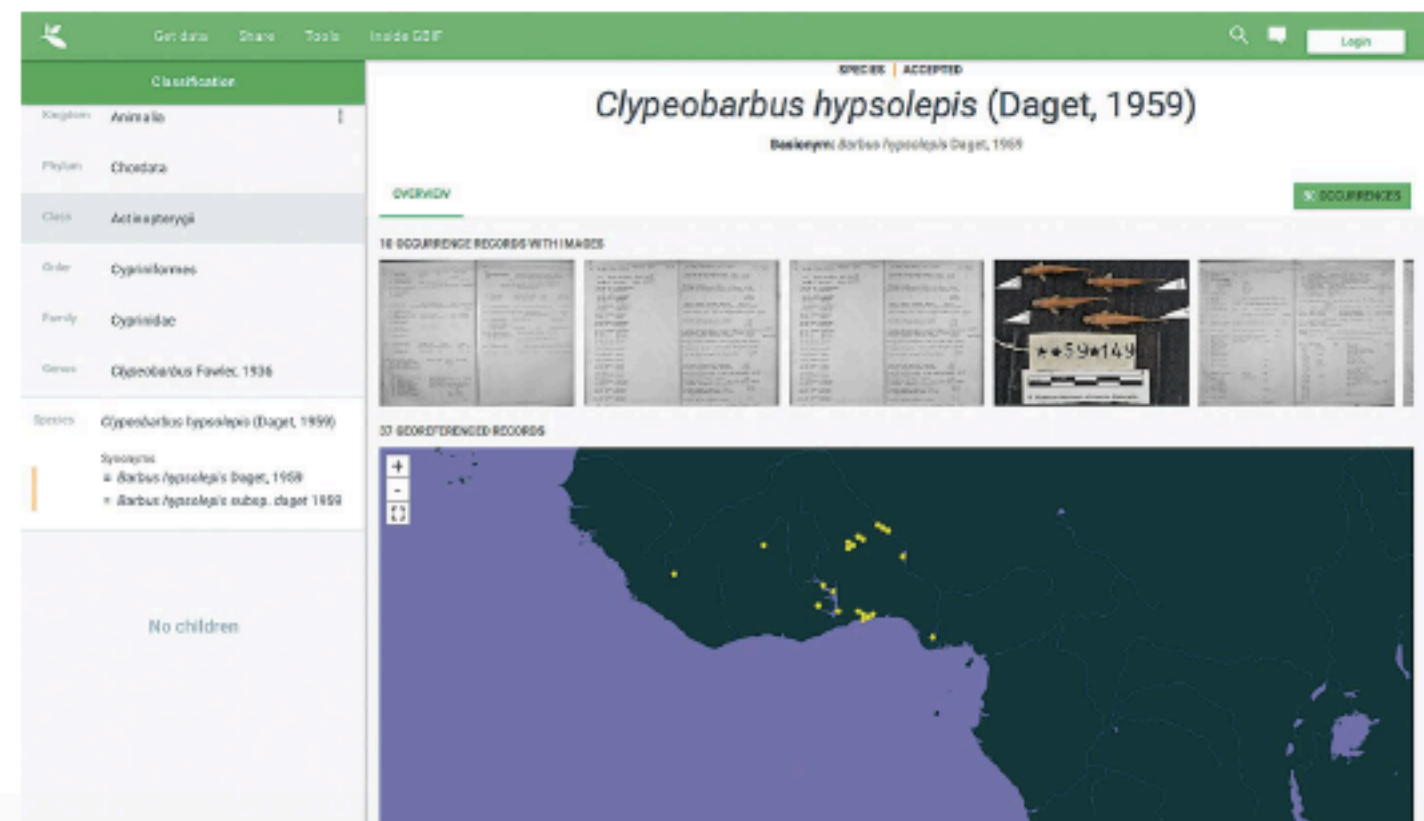
Fig 7. The number of female organizers per symposium over time at SCB Global conferences from 1999–2015 ($p = 0.63$, multiple $R^2 = 0.0009$).

What does this have to do with museum collections?

- As we saw with the meeting data- simple interventions can have a big payoff in increasing our impact
- Think about small changes on how we do something we are already doing can make meaningful impacts
- Digitization is already doing a lot to improve our intellectual community, how can we do it better?

Digitization of museum collections holds the potential to enhance researcher diversity

To the Editor — Natural history collections preserve critical information on biodiversity in space and time, but collections housed in museums have traditionally been inaccessible to many. At the same time, there remains great under-representation of many groups among researchers in science and education, even though diverse research teams approach problems with greater combinations of expertise and background, often resulting in more highly cited papers¹. Here, we highlight how the advent of digitization (open access to images and specimen data) now makes a wealth of biodiversity information broadly available, and represents one method that can simultaneously increase access to those samples and help diversify our community. Digitization allows access to museum



Axes along which digitization can help

- Geography
- Economics
- Disability status
- Addressing our neocolonial legacy

Geography



Economics



Disability Status



Neocolonial legacy



What can we do to improve our outreach

- Talk openly about who we want to include
- Listen to groups that have been historically marginalized
- Forge meaningful collaborations - go beyond “set it and forget it” mentality
- Realize you don’t have to do it all yourself

Useful resources

- ESA Inclusive Ecology Section: <http://www.esa.org/inclusive-ecology/>
- 500 Women Scientists <https://500womenscientists.org>
- Society for Advancement of Chicanos/Hispanics and Native Americans in Science <http://sacnas.org>