

Scientific collaboration for early detection of hidden-invaders: lessons from *Stenothoe georgiana* Bynum & Fox 1977

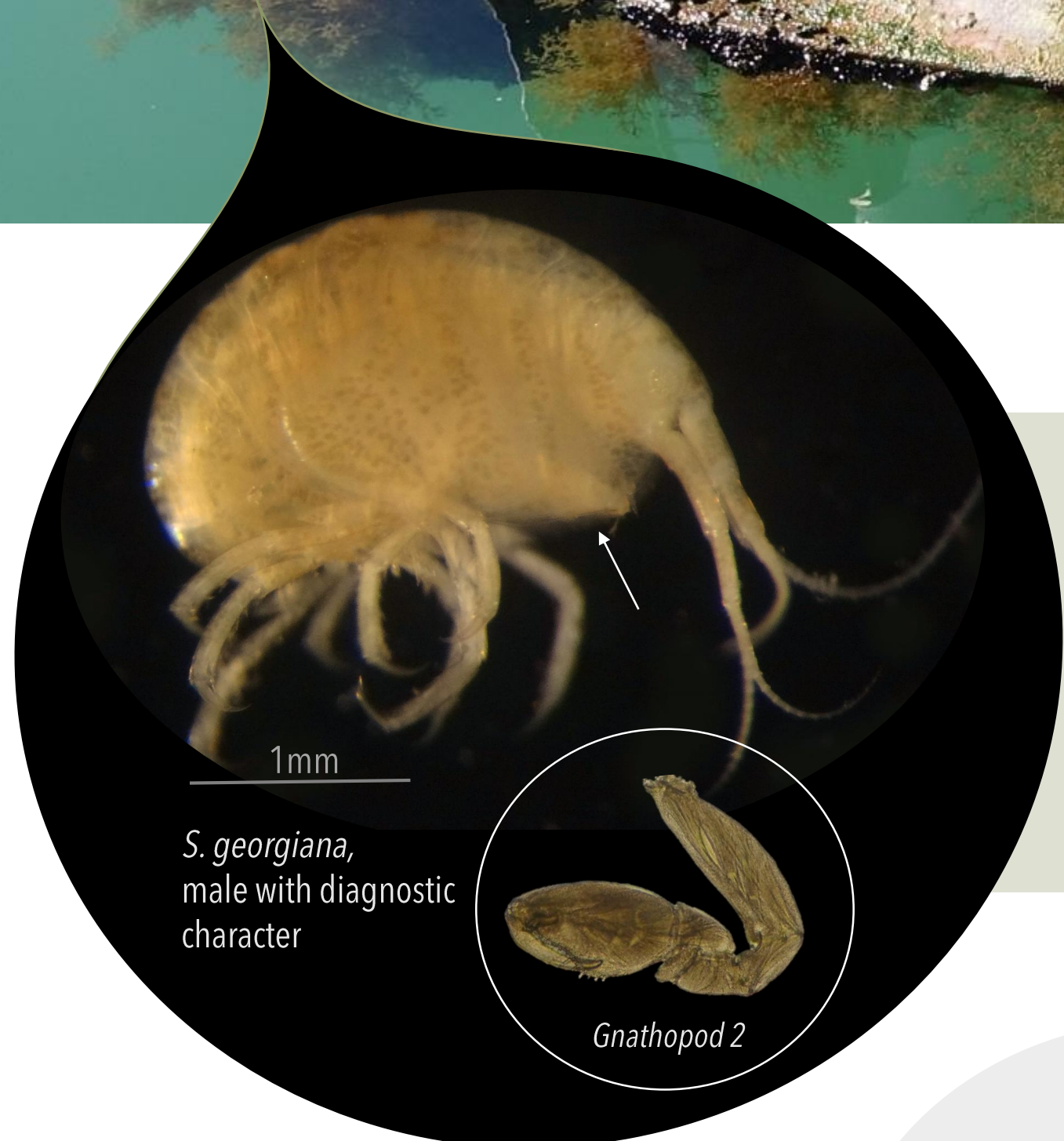
Martínez-Laiz G^{1*}, Ros M^{1,2}, Guerra-García JM¹, Marchini A³, Fernandez-Gonzalez V⁴, Vázquez-Luis M⁵, Lionello M⁶, Scribano G³, Sconfiatti R³, Ferrario J³, Ulman A^{3,7}, Costa AC⁸, Micael J⁹, Poore AGB¹⁰, Cabezas MP¹¹, Navarro-Barranco C¹

¹University of Seville, Spain. ²University of Cadiz, Spain. ³University of Pavia, Italy. ⁴University of Alicante, Spain. ⁵Instituto Español de Oceanografía (IEO), Spain. ⁶ARPAV_DAP Rovigo, Italy. ⁷Mersea Consulting, Turkey. ⁸University of Azores, Portugal. ⁹Southwest Iceland nature Research Centre, Iceland. ¹⁰University of New South Wales, Australia. ¹¹University of Porto, Portugal



Online | 2020

*martinezlaiz@us.es



Hidden invaders

- Numerous epifaunal species
- Small size, cryptic behaviour
- Taxonomically challenging, usually mistakenly identified
- OVERLOOKED, long time-lags → Inefficient, unaffordable management

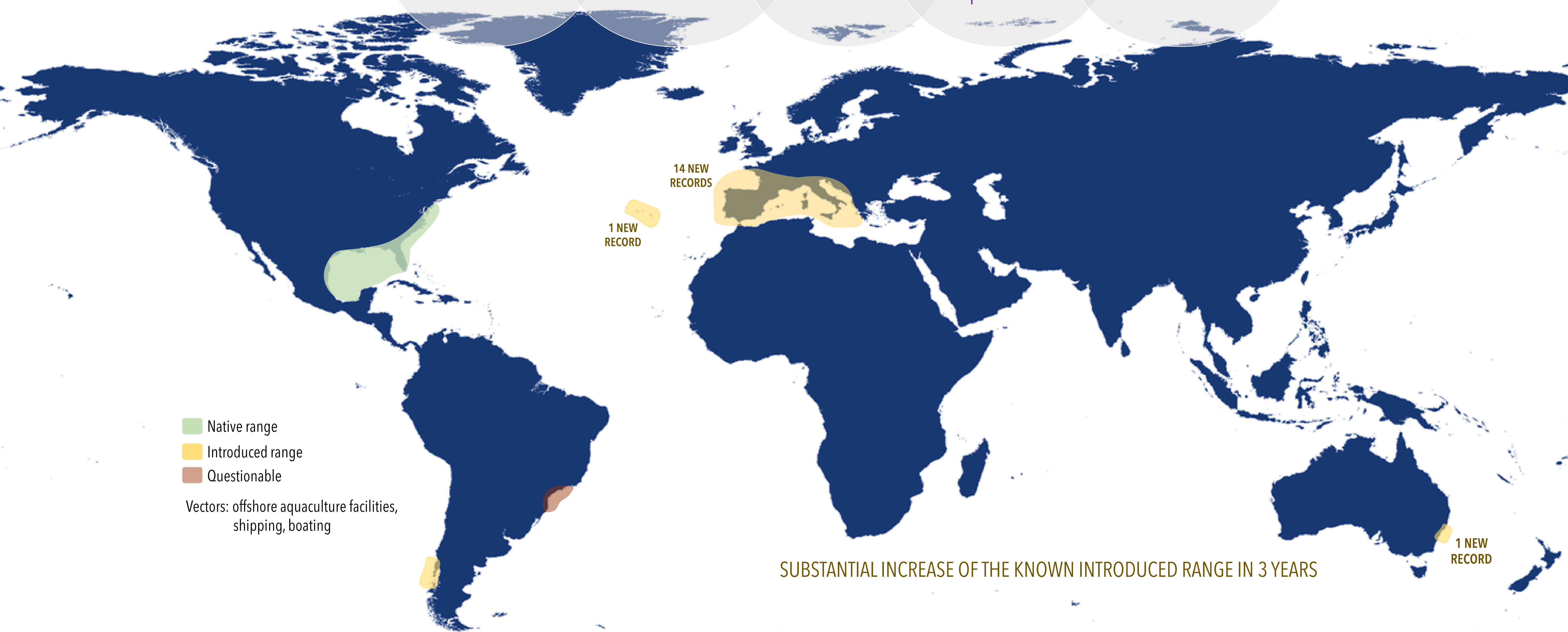
Krapp-Schickel
(2015) key
taxonomical
revision

Information
exchange among
amphipodologists

Sharing
records

Raising the
alarm, making
identification
possible

Engaging
international
cooperation from
11 institutions



Native range
Introduced range
Questionable

Vectors: offshore aquaculture facilities,
shipping, boating

SUBSTANTIAL INCREASE OF THE KNOWN INTRODUCED RANGE IN 3 YEARS

Recommendations to improve early-detection of marine epifaunal hidden-invaders

- Promote healthy cooperation in the scientific community:
Share your records to raise the flag and reduce time-lags!
- Participate in integrative collective studies rather than individual publications
- Work on building a strong expert network at regional, national and international levels
- More frequent updating of alien databases (WRIIMS, EASIN, AquaNIS)

Taxonomical
expertise

Open
communication

Standardized
sampling
methodology

- Increase recruitment of young taxonomists
- Promote knowledge exchange between seniors and early-careers
- Effort in updating alien taxa inventories with taxonomy input
- Awareness outreach to the general public
- Establishment of taxonomy networks (SCAMIT, MOTax)

- Implement standardized and quantitative monitoring methodology for fouling communities
- Include and publish your absence data