



# Bridging the skills gap in UK species identification – lessons learnt and next steps

Steph West and John Tweddle  
Angela Marmont Centre for UK Biodiversity

# The core project

- Aims to proactively support the UK's taxonomic skills-base, focus on developing UK biodiversity ID, biological recording and museum skills
- Led by NHM in partnership with FSC and NBNT
- Funded by HLF Skills for the Future programme
- Active phase of the project runs 2015-2018, during which fifteen 12-month traineeships will be hosted at the NHM (supported by tax-free bursary)



## Other project aims



- ID training for up to 1,000 people
- UK biodiversity ID training resources
- Pilot study: encouraging workforce diversity within the sector
- Pilot study: new models of recruitment into the sector
- Skills-sharing, dissemination of lessons learnt, future steps

# The Traineeship

During this three year project 15 trainees will undertake a 12-month work-based training programme at the NHM:

## Specialist identification training includes:

- Flowering plants
- Lichens
- Mosses, liverworts & hornworts
- Beetles
- Freshwater invertebrates
- True flies
- Earthworms
- Bees, ants and wasps

## Work placements in:

- The Angela Marmont Centre for UK Biodiversity
- Specialist curation teams
- The Museum's Learning and Engagement teams
- Field Studies Council centres

Crucially trainees will also receive training in scientific communication and instruction, enabling them to pass on the skills they have learnt to others

# Selecting the Trainees

- Changing the recruitment model for the Museum
  - Experimenting with new target audiences for advertising
  - Altered format for job descriptions & application questions
  - Group activity based selection day



# What is the data showing?

## Baseline statistics:

	NHM <sup>1</sup>	NHM Science <sup>2</sup>	CIEEM <sup>3</sup>	BES <sup>4</sup>	UK <sup>5</sup>
Female	54%	54%	50%	40%	51%
Male	46%	46%	50%	60%	49%
White	88%	93%	94%	91%	86%
Other ethnic group	12%	7%	6%	9%	11%

<sup>1</sup> NHM "Current ethnicity, gender, age dated 29/11/13" (unpublished)

<sup>2</sup> NHM "Current ethnicity, gender, age dated 03/11/15" (unpublished)

<sup>3</sup> Chartered Institute for Ecology & Environmental Management "Diversity in Ecology and Environmental Management – Practitioner's Survey" (Unpublished, as at 16/03/15) Data derived from statements in <sup>3</sup> – White British = 88%, 12% split evenly between Mixed race, Asian, Polish, French, Australian, Caribbean

<sup>4</sup> British Ecological Society "Making Ecology for All" December 2013

<sup>5</sup> Office for National Statistics, 2011 Census Data

# What is the data showing?

	<b>Year 1 Applications</b> Basic recruitment	<b>Year 2 Applications</b> Targeted recruitment	<b>Year 3 Applications</b> Combined
Applications	404	242	201
Female	57%	56%	55%
Male	43%	44%	45%
White	88%	84%	87%
Other ethnic group	12%	16%	13%

# Our Trainees





# What Training Did We Deliver?

172

Non-trainee workshop  
Participants

48

Employability skills  
development  
workshops

62

Natural History  
Workshops  
Delivered

33

NHM experts  
delivering training

53

Site Visits

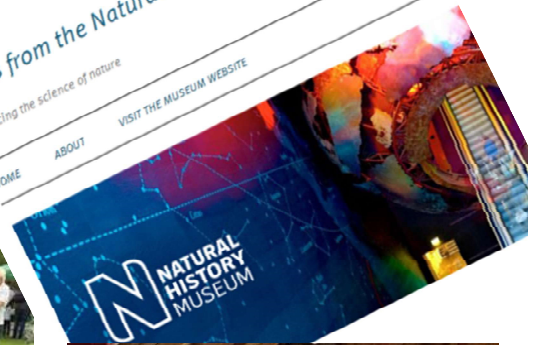
# Working With Our Core Partners



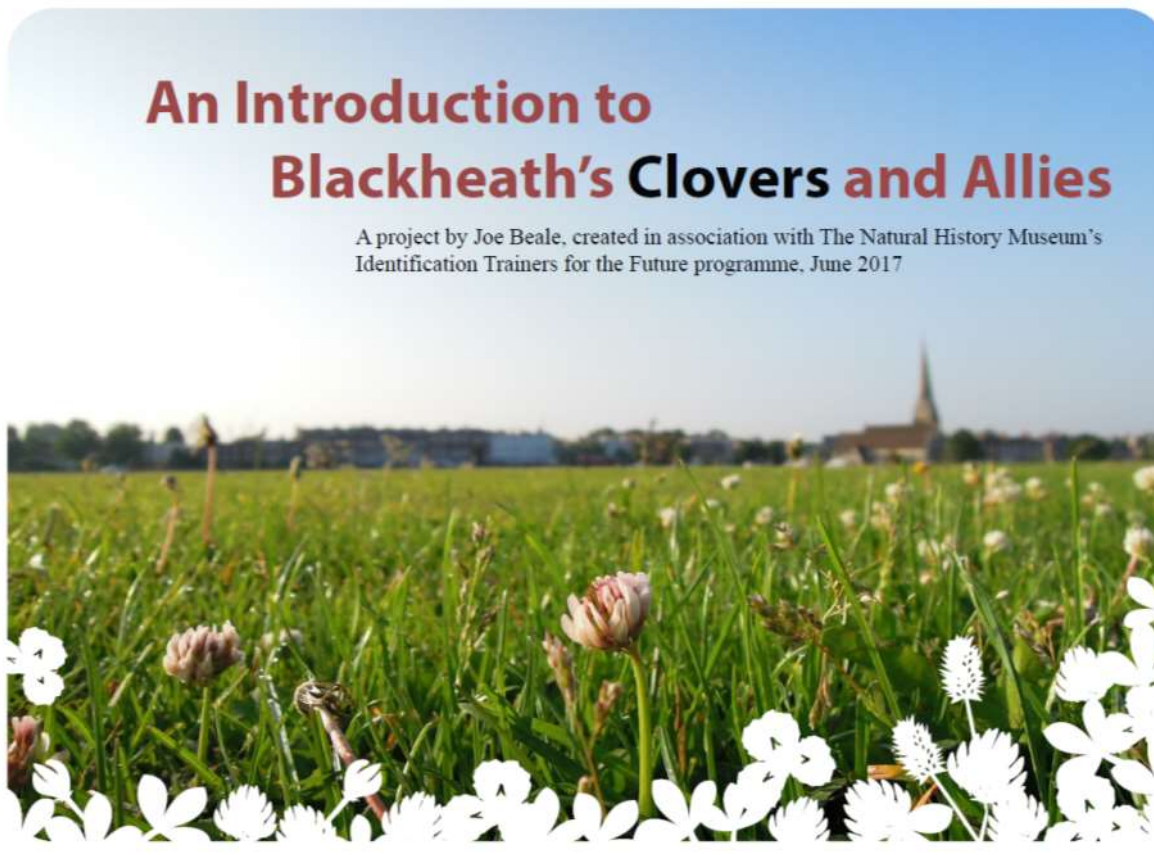
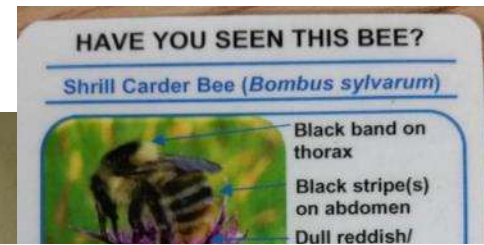
# Events, Training & Publications



Blogs from the Natural History Museum  
Advancing the science of nature  
HOME ABOUT VISIT THE MUSEUM WEBSITE



# Final Projects



If you find a Shrill Carder Bee  
please send to:  
[advice@bumblebeeconservation.org](mailto:advice@bumblebeeconservation.org)



# What next for our ID Trainers?

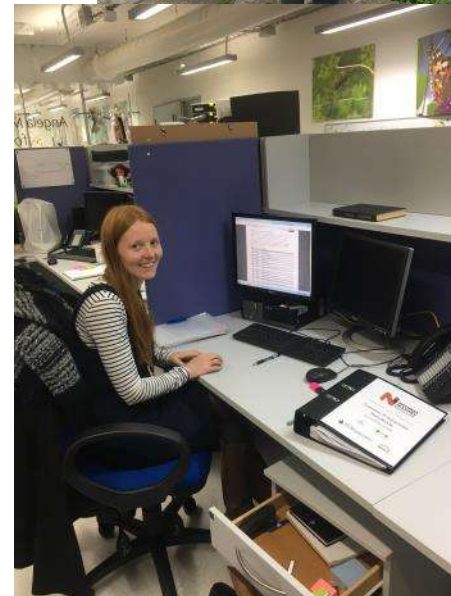
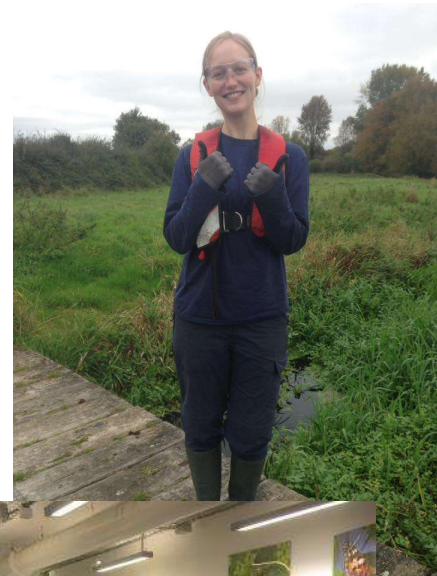


'Amazing!' Mike Waller, Councilor Claudia Webb and Dusty Gedge admire the rare orchid

**An extremely rare orchid has amazed botanists and environmentalists by taking root in central London for the first time - on the roof of a council rubbish dump.**



# What next for our ID Trainers?



# Our Trainees – continuing success



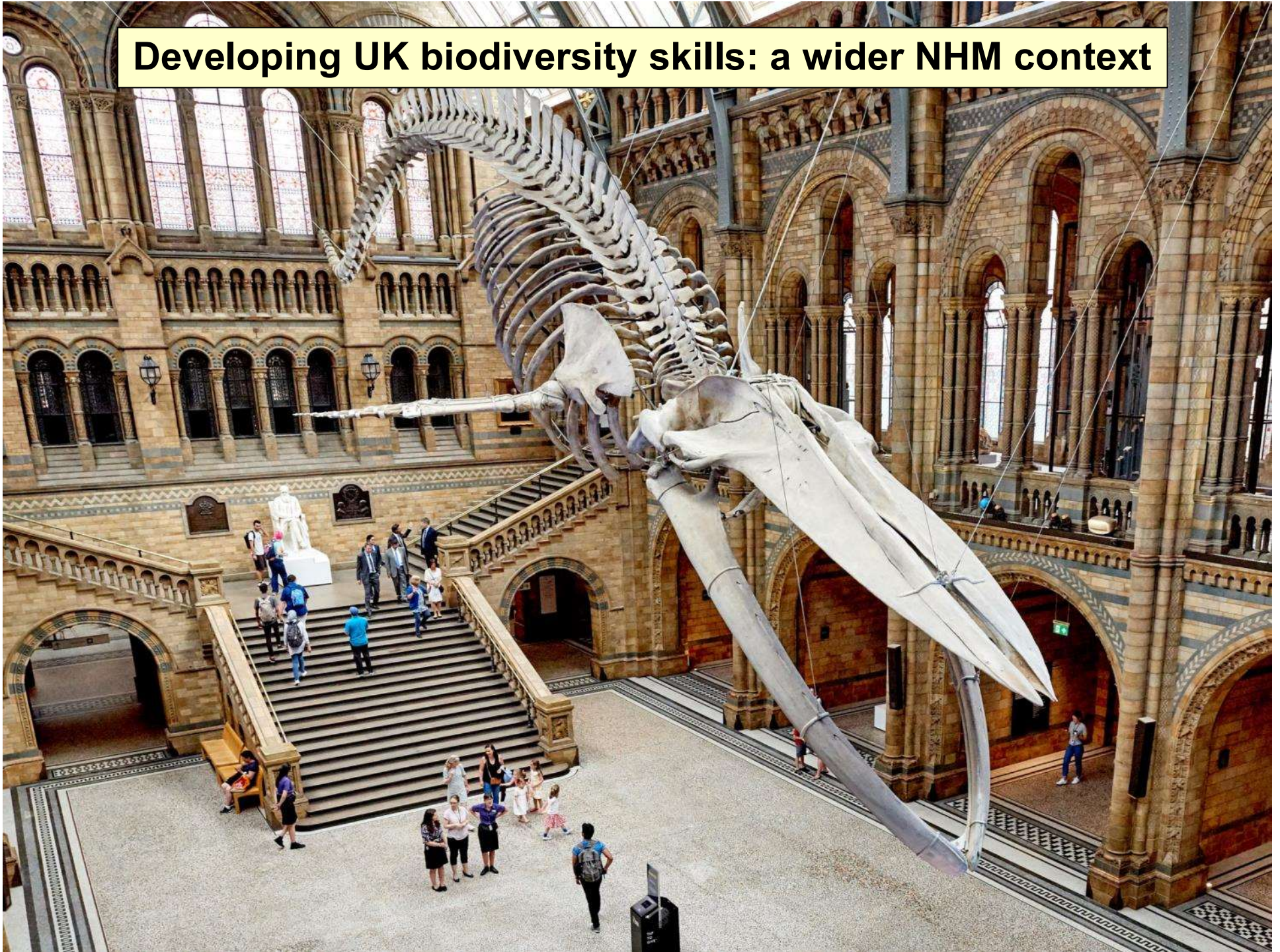
# Evaluation & Sharing Lessons Learnt

- Coming soon:
  - Full evaluation & review of the project
  - Document sharing the lessons learnt
  - Seminar/workshop mid-2018 'What Next for ID Training?'



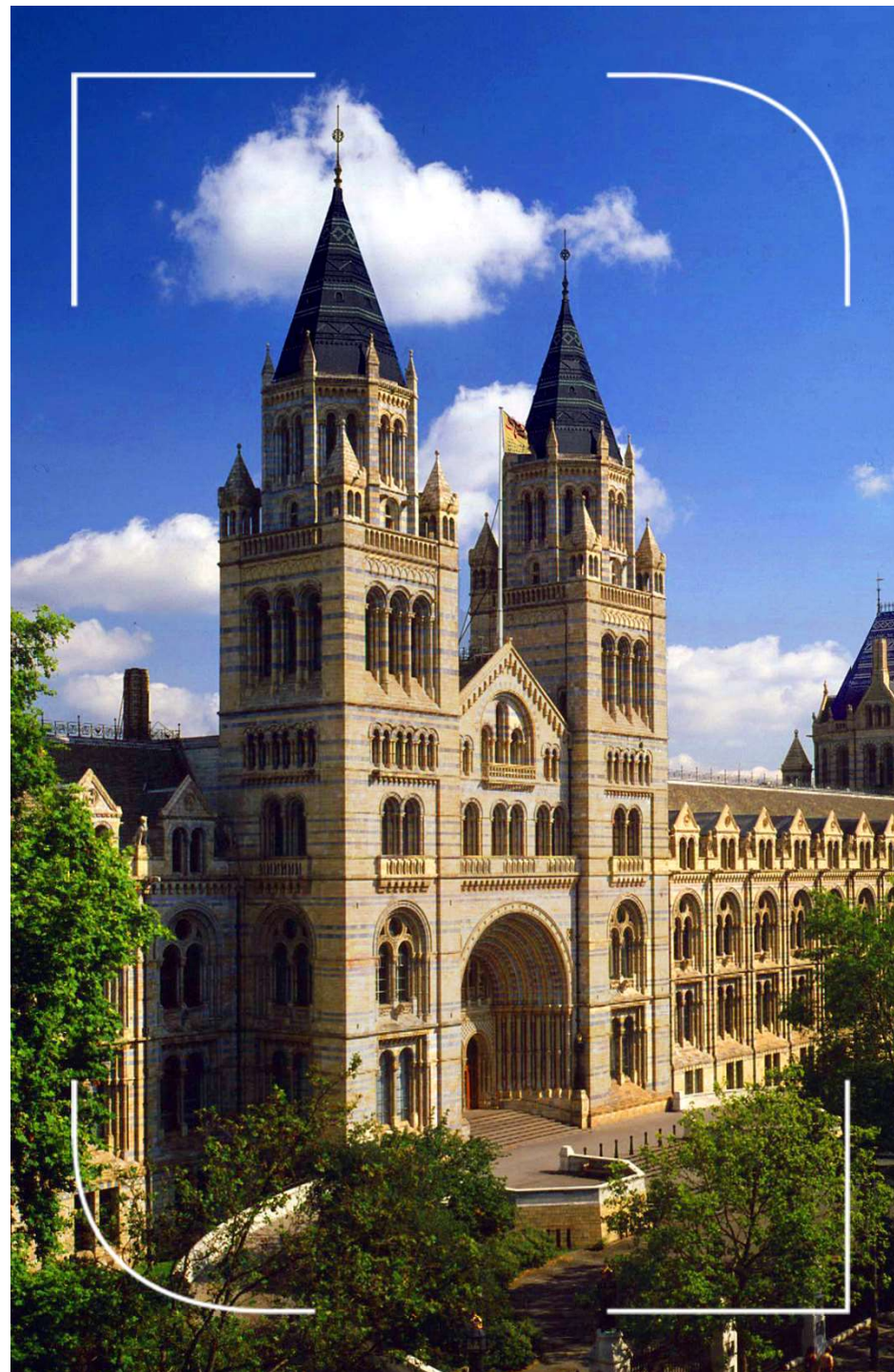


## Developing UK biodiversity skills: a wider NHM context



## We are taking a tiered approach to tackling the taxonomic skills gap

- Public engagement and schools
- Large-scale citizen science
- Collections access and wider support for naturalists
- Postgraduate training (MSc, MRes, PhD, NERC shortcourses)
- Early career support: *Identification Trainers for the Future*
- Professional development (digital, molecular, collections prep & care)



# The Angela Marmont Centre for UK Biodiversity

*“To further the appreciation, study and understanding of UK natural history and inspire and support existing and future naturalists”*

## How can we most effectively:

- Reconnect UK society with nature
- Inspire & train the next generation of natural history scientists
- Work together to understand, manage & conserve UK biodiversity



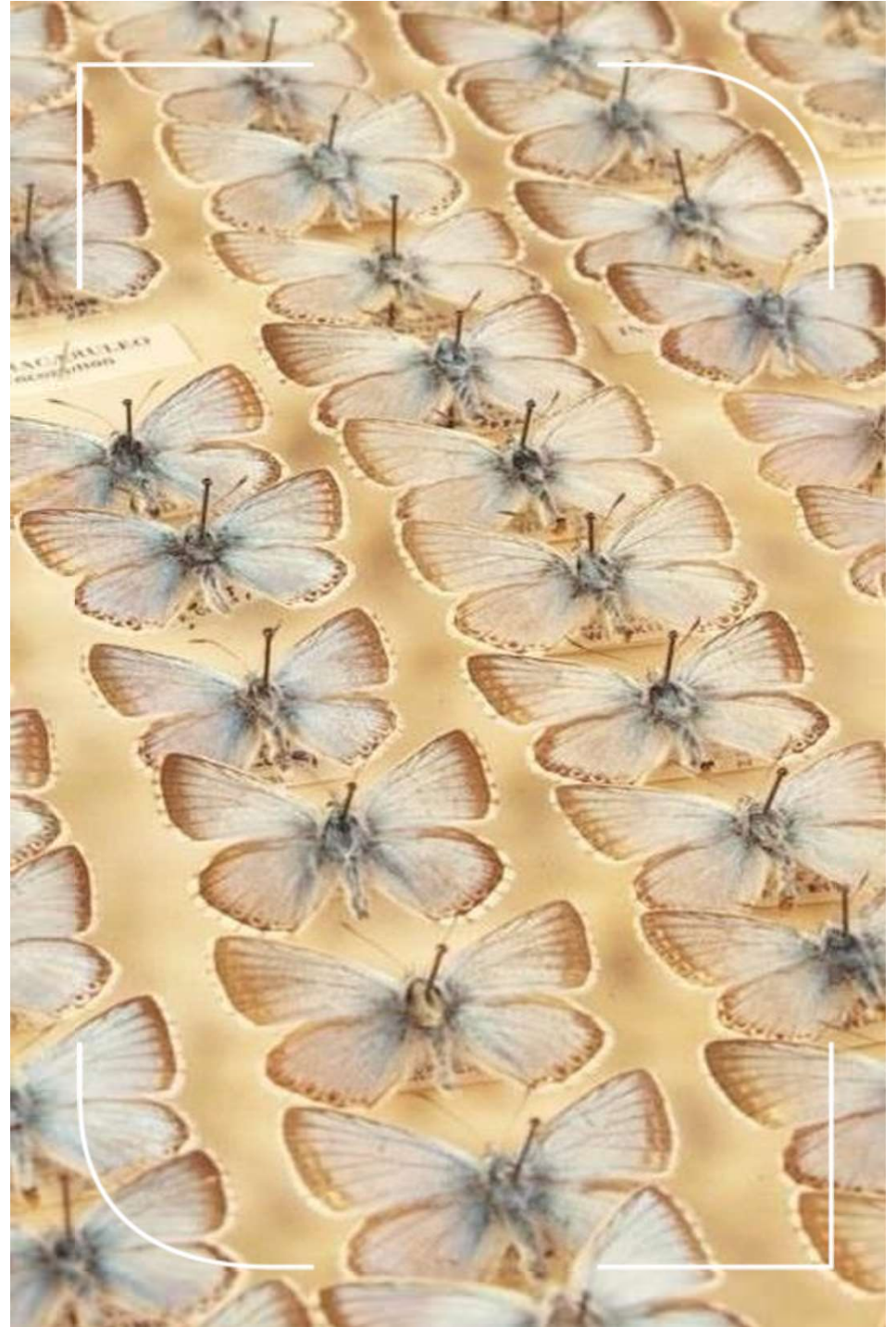
# A free resource centre and training hub for naturalists

- Open to all: beginner to expert, tailored to support your needs
- Advice, mentoring and training
- Free personal work spaces, workshop facility & meeting rooms
- Easy access to UK collections, microscopes and imaging facilities
- Naturalist-focused libraries incl. London Natural History Society



## And a focus for collaborative UK natural history projects

- Public engagement events
- Public (& commercial) ID services
- Citizen science programme
- Identification resources & training
- UK Species Inventory
- Focus on skills throughout



# Developing UK biodiversity skills: the AMC in numbers (2013-17)

**4.0k**  
Number of times that naturalists have used AMC facilities

**>40**  
UK groups have used AMC for meetings and workshops


**1.3k**  
People attending training workshops

**>75k**  
Downloads of ID guides and apps

**12.4k**  
Public enquiries answered

**46.3k**  
Participants in field-based citizen science

**>35k**  
Face to face interactions at events



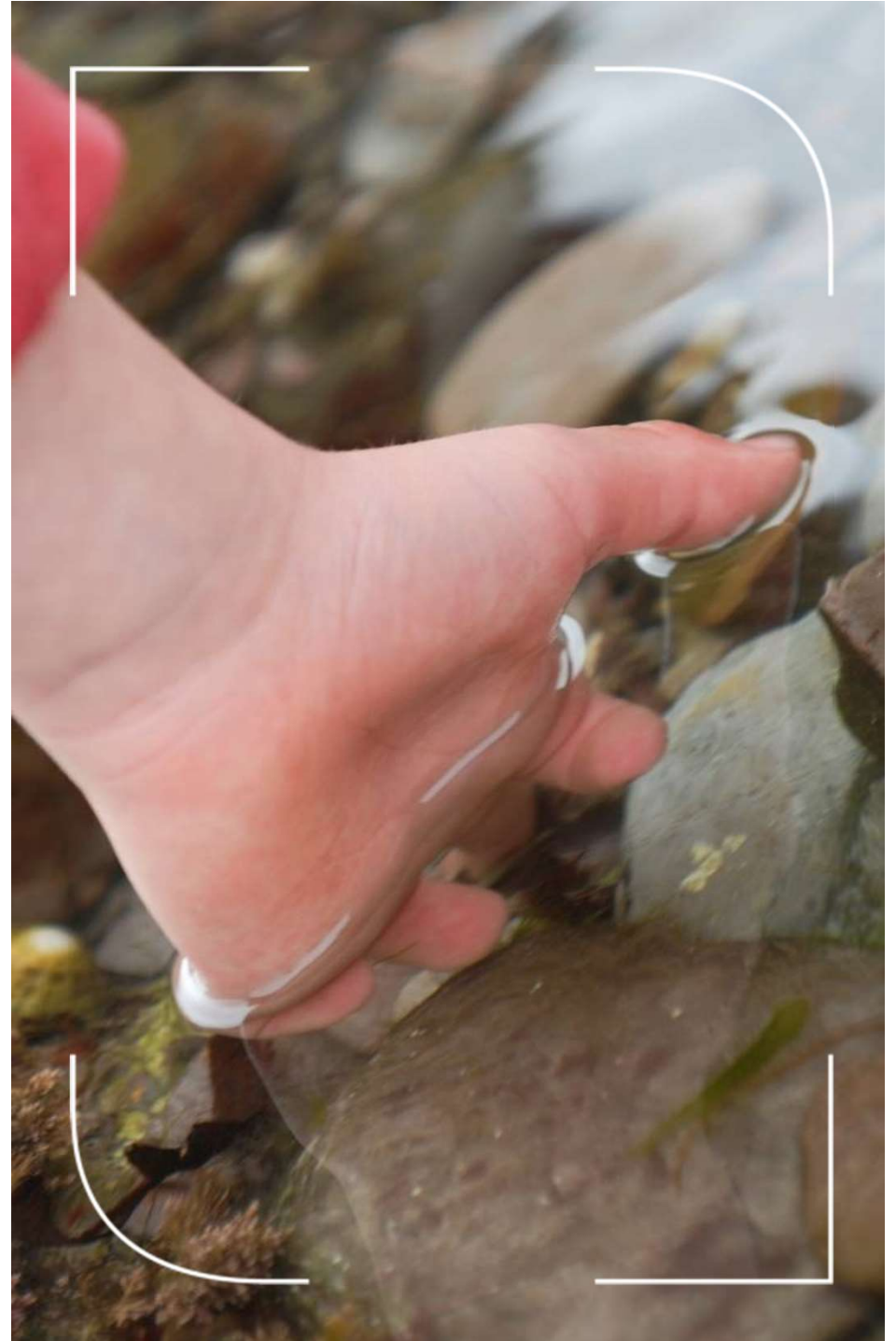
As pressures on the UK's natural diversity and concerns over a) declining expertise and b) disconnect with nature all increase, the need to directly and actively engage society with natural history science grows

The legacy of *Identification Trainers for the future* is that UK biodiversity is now a core strategic priority for the NHM

Becoming a specialist is a long process...everyone starts as a beginner!  
We'd love to work together to tackle this challenge.

## How you can get involved

- We are creating a physical and virtual hub for UK biodiversity study, training & engagement, supported by *Dippy on Tour*
- We are currently formulating our new 5-year AMC and UK biodiversity training strategies
- How can we ensure that these benefit the sector as widely as possible?
- What are your priorities and recommendations?





Four blue corner brackets are positioned around the central text: top-left, top-right, bottom-left, and bottom-right.

**N**

**NATURAL  
HISTORY  
MUSEUM**