



The Australian National Insect Collection moves into its future

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Australia's National Science Agency



Why a new building?

- Expansion space
- Naphthalene
- Move ethanol collections in a centralised and safe accommodation
- Streamline operations of collections and labs
- Foster inter-collection collaborations
- Improve research and digitisation workflows



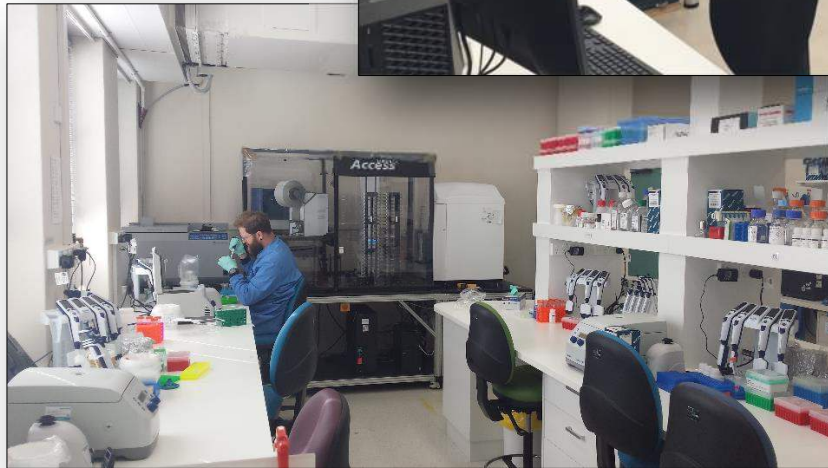
- First project meetings in 2017
- Funding secured in 2018-2019
- Final design completed in 2021 (Hassell)
- Construction commenced in early 2023
- Relocation of teams started in August 2024

CSIRO Executives Doug Hilton and Elanor Huntington with Governor General Sam Mostyn



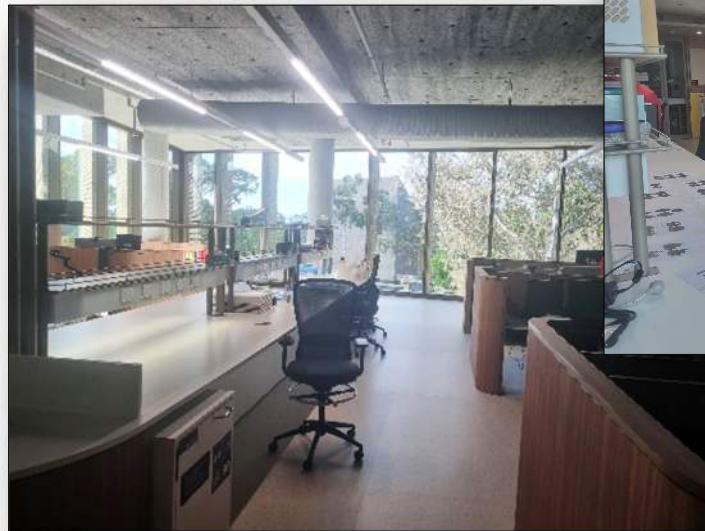
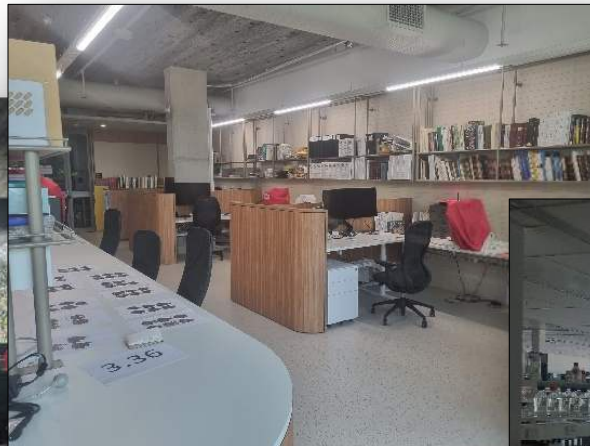
“Old” ANIC

- Division of Entomology, Foundation building on Black Mountain
- ANIC sub-collections spread across four building on site
- Collections and staff offices/labs in same space
- Pest management primarily based on Naphthalene
- Fantastic and much-loved accommodation for the ANIC



“New” ANIC

- National Research Collections Australia
- ANIC sub-collections under one roof
- Pest management primarily based on cabinetry, building design and new pest management practices
- Separation of collections from other labs, maintaining high accessibility and critical adjacencies
- Curatorial areas organised in hubs
- Wet labs and anterooms
- Fantastic space to collaborate, flow collections through labs and will be much-loved accommodation for the ANIC in the years to come



Preparing ANIC for relocation: a time-consuming and careful business

FROM

- Naphthalene
- Timber in halls
- Pinned collections in stackable, non-gasketed cabinets
- Ethanol collection in large vials in card file drawers
- Slide collections in old and varied cabinetry

TO

- Chemical-free pest management
- No natural materials kept long-term in vaults
- Metal drawers in new gasketed 50-drawer cabinets
- Vials in jars, optimising space and ethanol volumes
- Slides in new consistent cabinets

... consolidation of paper-based resources, packing strategies for all sub-collections and packing, of course!

Pest management treatments during relocation

- Low temperature treatment (-20C for 14 days or -35C for 5 days)
- Fumigation of collection items that cannot be frozen
- Wipe clean and direct relocation
- Visual inspections

Pinned collection (~23,000 drawers)

Removal of naphthalene

- 360 Kg of naphthalene flakes removed from 4,785 drawers
- Tablets removed manually as we prepare drawers for relocation

Removal of natural materials

- Cork and timber removed

Cross-pinning

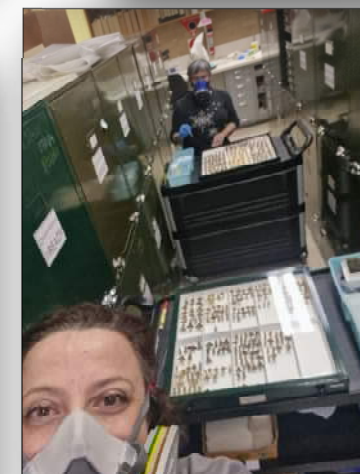
- Assessment of each drawer and cross-pinning when necessary

Audit of non-standard drawers and hyper-fragile specimens/groups

Final prep

- Removal of slides
- Validation of cross-pinning
- Removal of naphthalene tablets
- Barcoding of each drawer (IAS)

LOW TEMPERATURE TREATMENT





Slide collection (~ 270,000 slides)

Consolidation from varied cabinetry in Orphans into standardised gasketed cabinets

Consolidation from small stackable cabinets to stand-alone gasketed cabinets

8,064 trays (20 standard slides) transferred and labelled – now packed in archival boxes and moving into the new collections building

Securing over 134 green cabinets and 156 drawers before relocation



FUMIGATION



Ethanol collection

~ 2,600 ethanol drawers to be transferred = ~ 280,000 tubes

~ 1,500 drawers transferred (58%) = ~ 160,000 tubes

Estimated volume reduction = 50-70%

Estimated ethanol reduction = 40-50%

WIPE CLEAN AND DIRECT TRANSFER



Cryo-collections

~ 50,000 samples/lots transferred into barcoded tubes

-20C and -80C freezers (and their content!) fully relocated

Freezers all backed up in case of power failure



Other resources

Reprints: duplicates removed and holdings consolidated in corflute boxes (43% reduction)

Library books (86 m, 108 boxes returned to BM library)

Books donated to staff and LifeLine

3721 CM loan documents scanned and now linked in Specify

Other paper resources (e.g. specimen/species cards and admin papers) scanned in-house

9480 photo slides collections assessed, scanned through DatacomIT, many more originals moving to Archives



THANKS...

- CSIRO and the Department of Education which co-funded the project through the National Collaborative Research Infrastructure Strategy (NCRIS)
- The whole ANIC team, including honoraries and volunteers
- Lisa Burns, Research Operations Manager
- Toni Moate, Director of NCMi
- Andrew Young and Anthony Whalen, previous and current NRCA Directors
- ANIC Deputy CM, Olivia Evangelista and Curatorial Team past and present (photo credits: J. Fraser, D. Jennings, B. Koopmans)
- Relocation Manager, Coordinator and team
- General removalist for teams and equipment (TRT)
- Specialised removalist for all collections (IAS) (photo credits: C. Chevalier)

See you soon for visits,
loans and collaborations!!

