



Plant & Food
RESEARCH
RANGAHAU AHUMĀRA KAI



Small hive beetle- current and future risks to NZ beekeeping industry

Ashley Mortensen

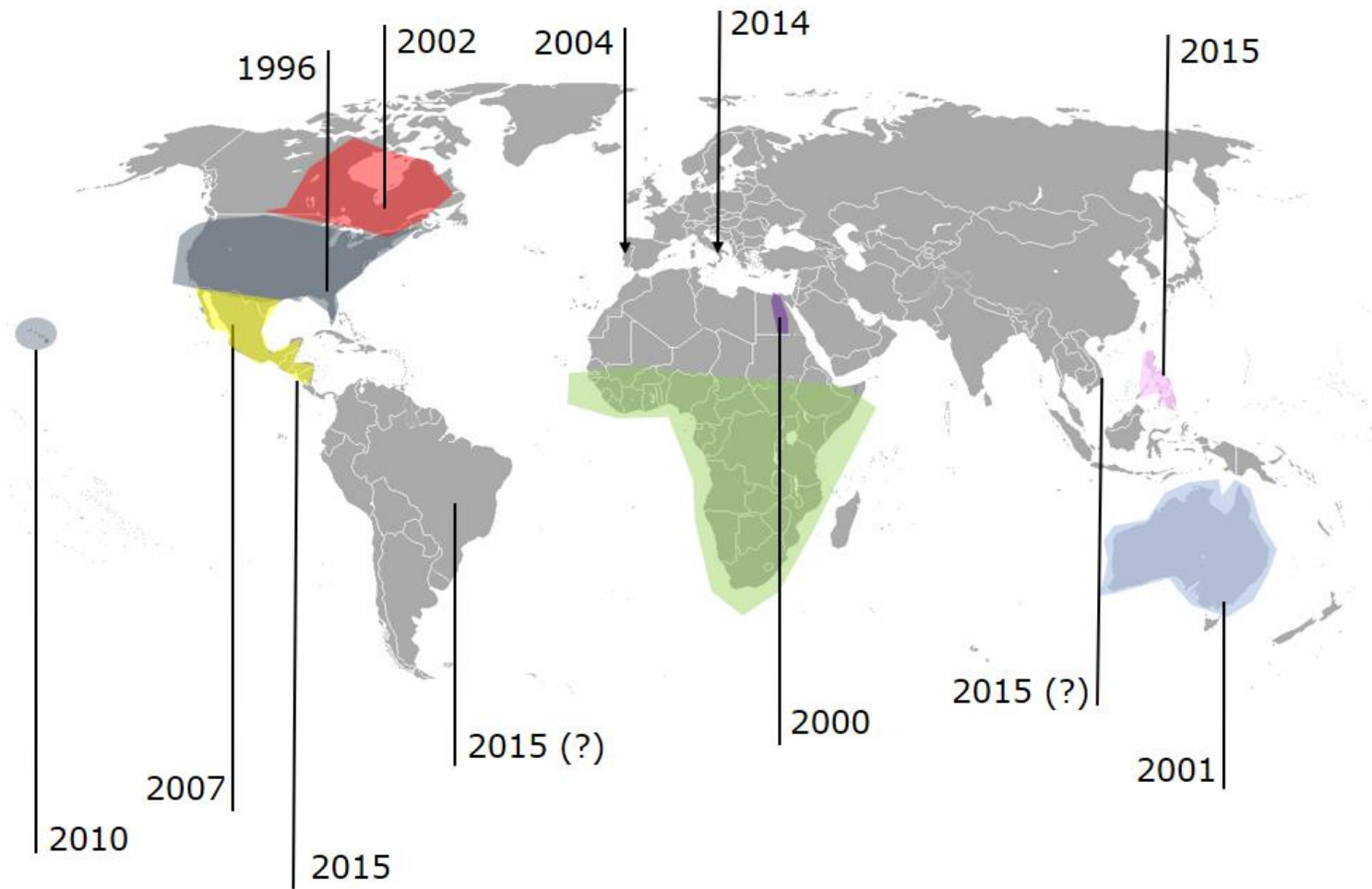


THE SCIENCE OF PREMIUM™

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Aethina tumida





Biosecurity New Zealand

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Bee Pathogen Programme

Bees are an important part of New Zealand's ecosystems and primary industries. Find out about the Bee Pathogen Programme, how it works to protect our apiculturists and how we're getting ready to respond to potential biosecurity threats.

Bees matter



Aims

The programme aims to find out:

- how common pests and pathogens are
- how severely hives are affected by pests and pathogens
- where pests and pathogens are located in New Zealand
- how pests and pathogens are affecting our apiary industries – including how much honey hives are producing and how many bees are being lost from colonies.

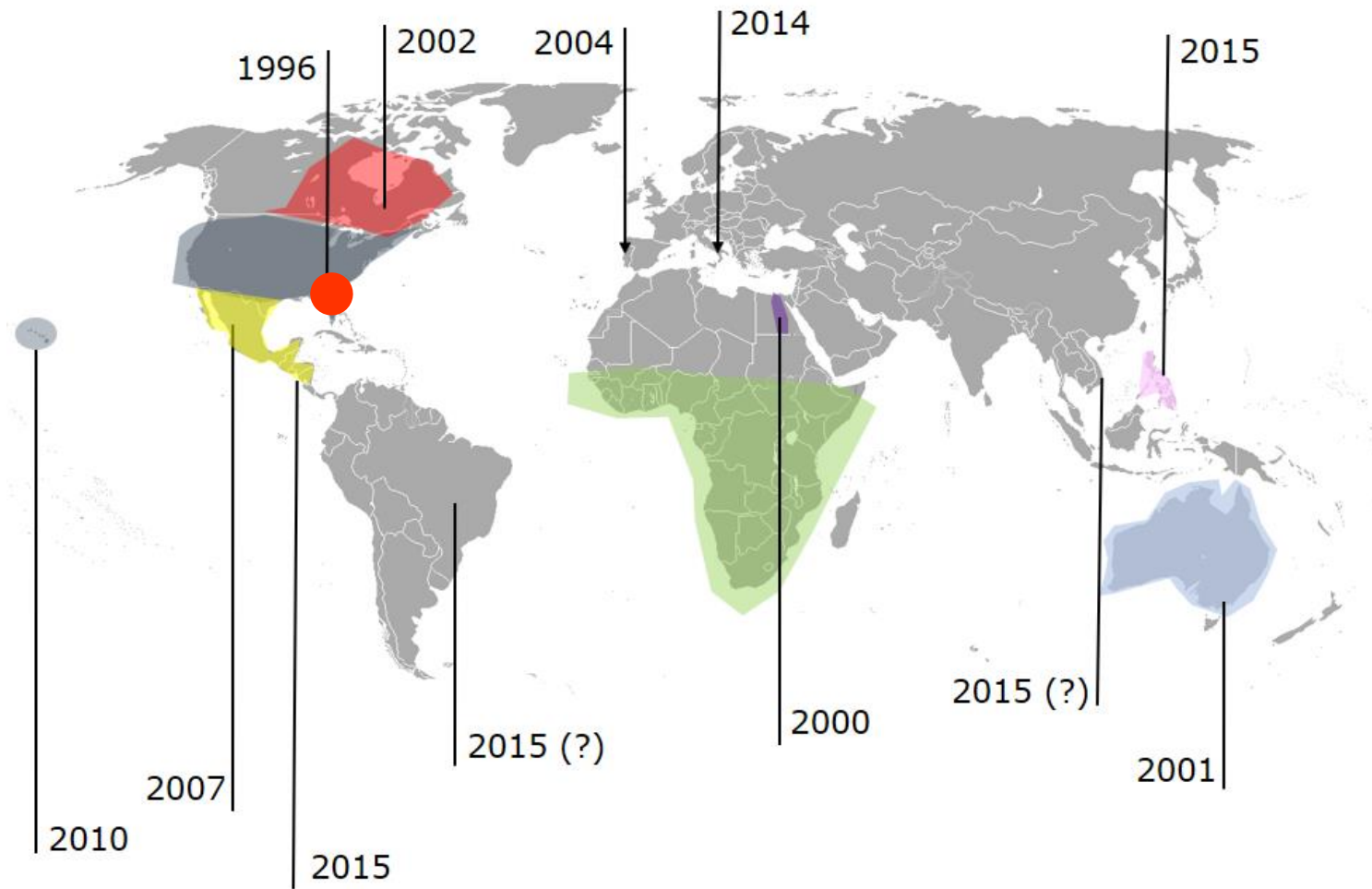
What we're doing

Trained inspectors have done disease inspections on a variety of apiaries from around New Zealand. They looked for:

- American foulbrood
- European foulbrood
- half-moon syndrome
- sacbrood
- chalkbrood
- black shiny bees
- deformed wing virus
- signs of pests – including wax moth, Varroa mites, ants, wasps and small hive beetles.

Inspectors checked 8 hives at each apiary. They collected bee samples and recorded specific information for each – including how the hives were managed.

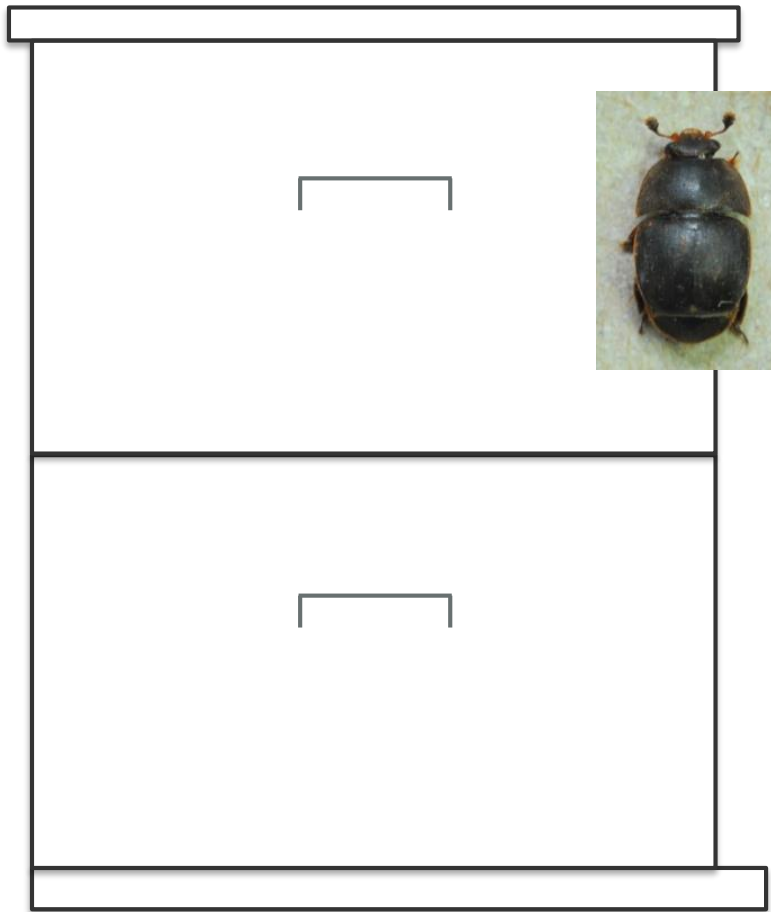
Bee samples were sent to both our Animal Health Laboratory (AHL) and our Plant Health and Environment Laboratory (PHEL)

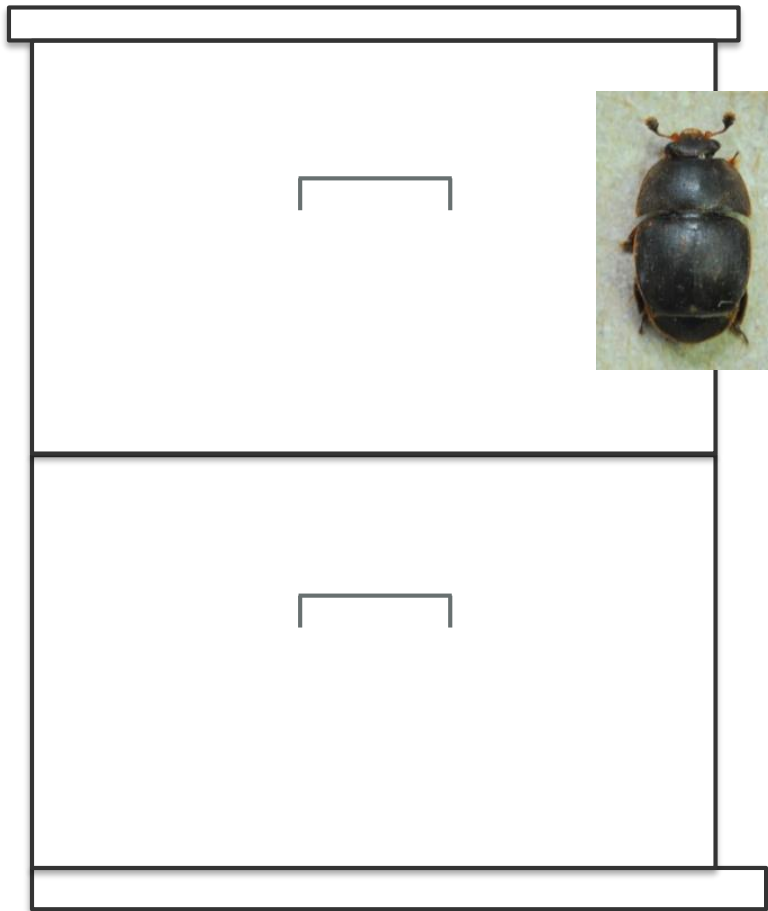


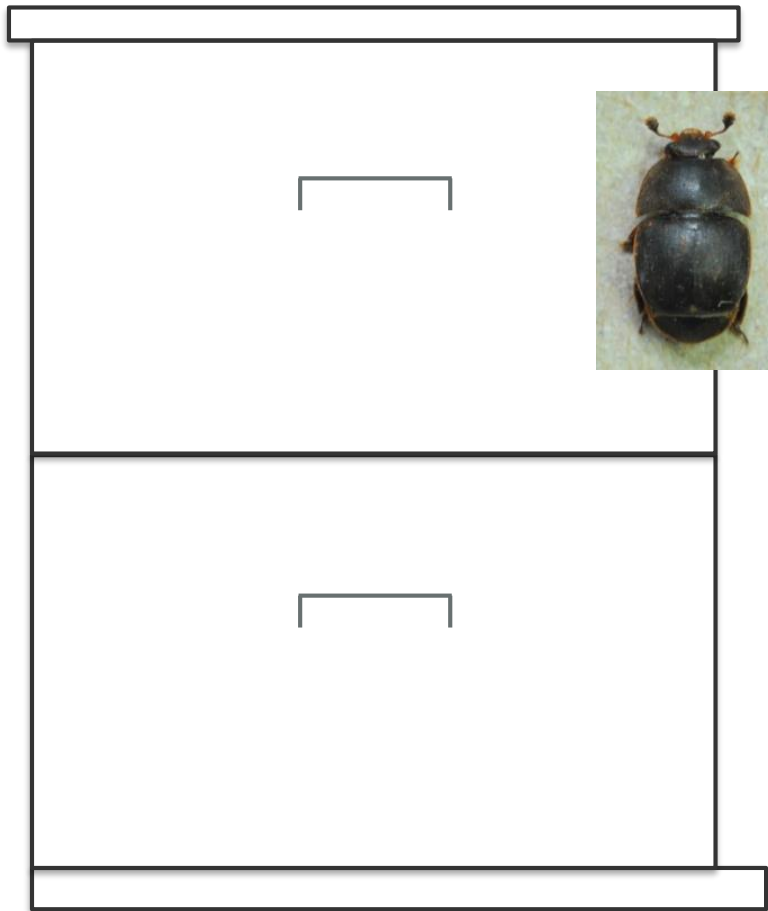


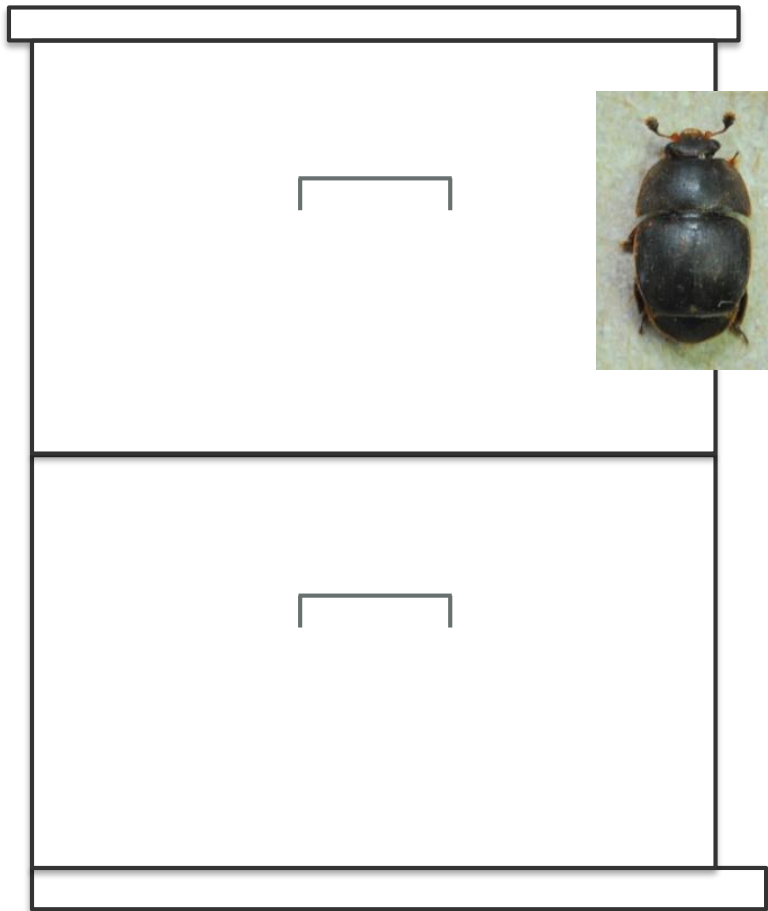


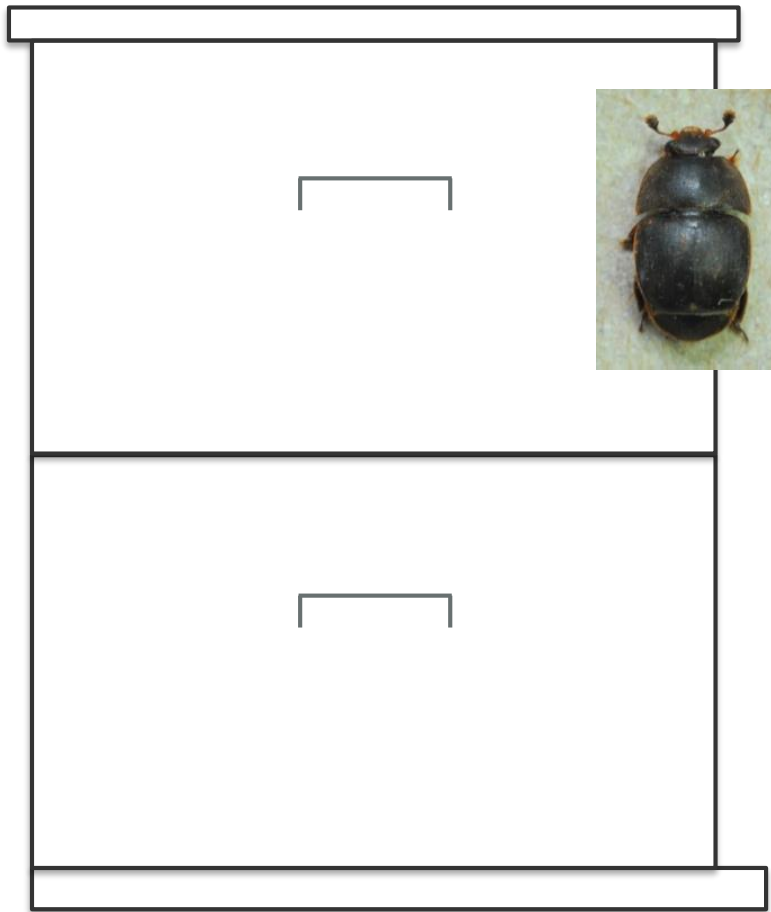


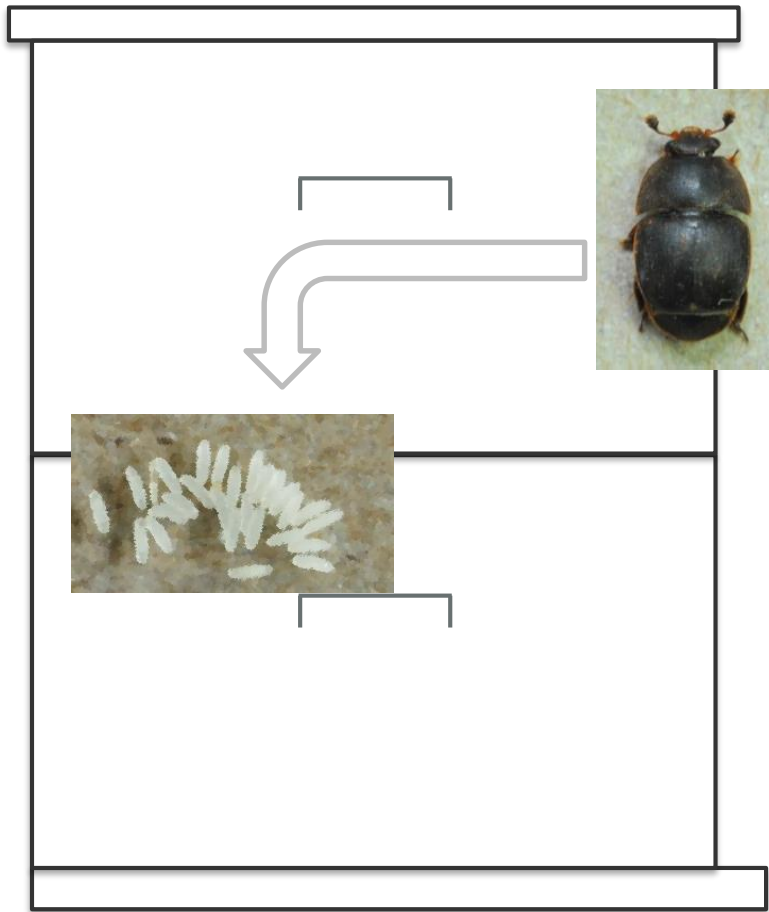


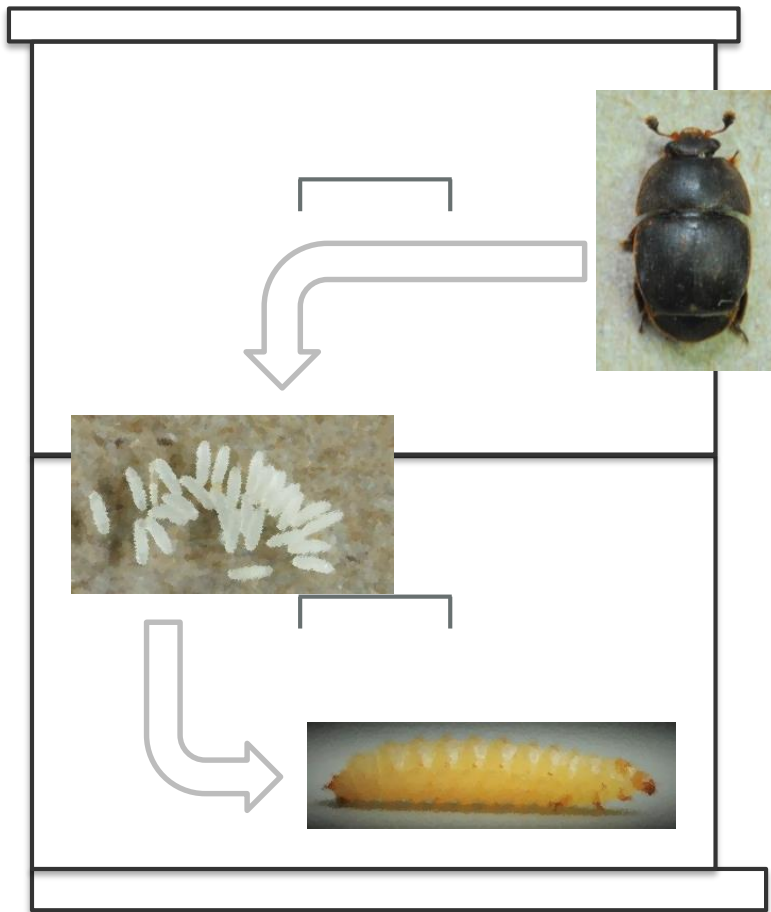


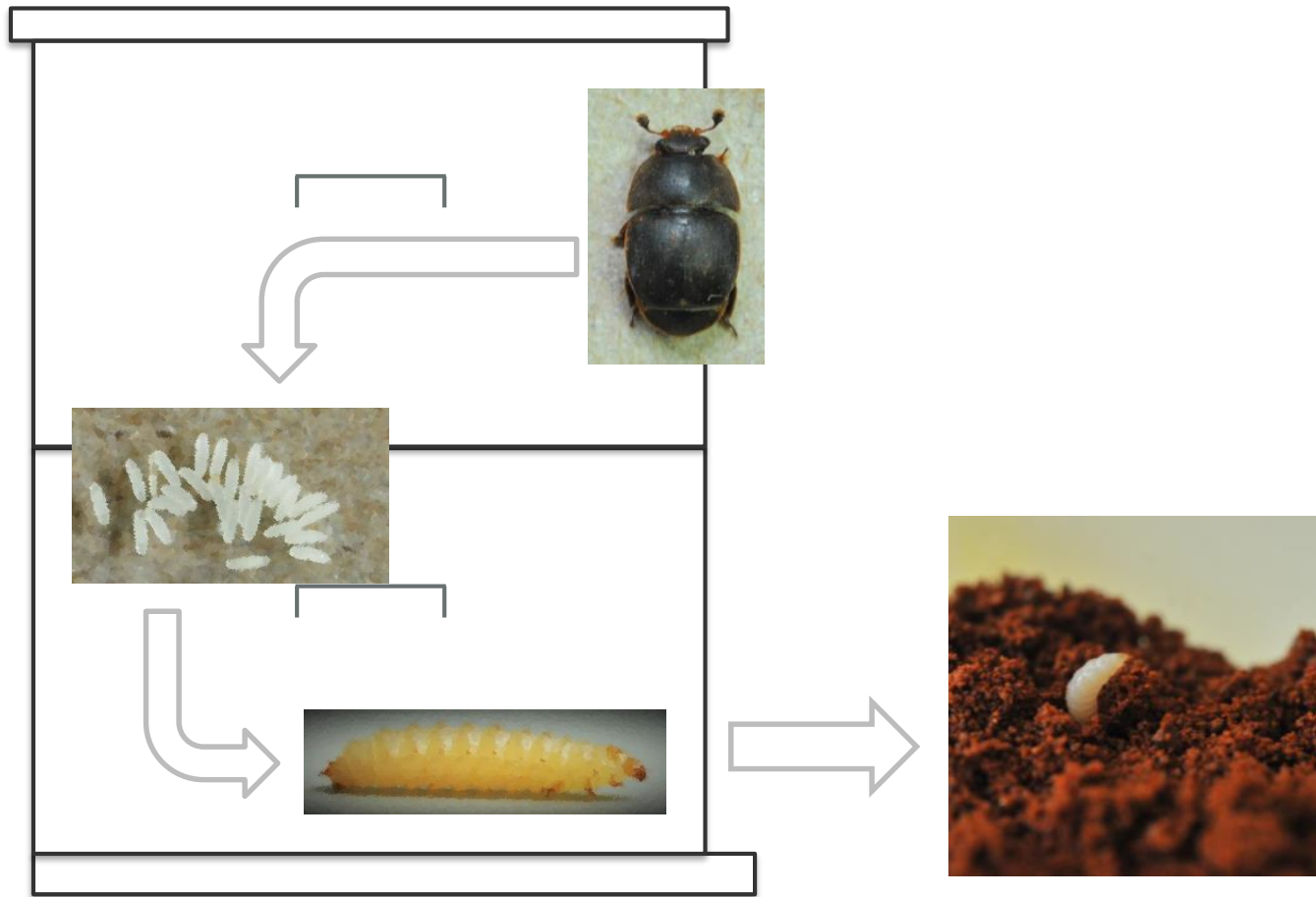


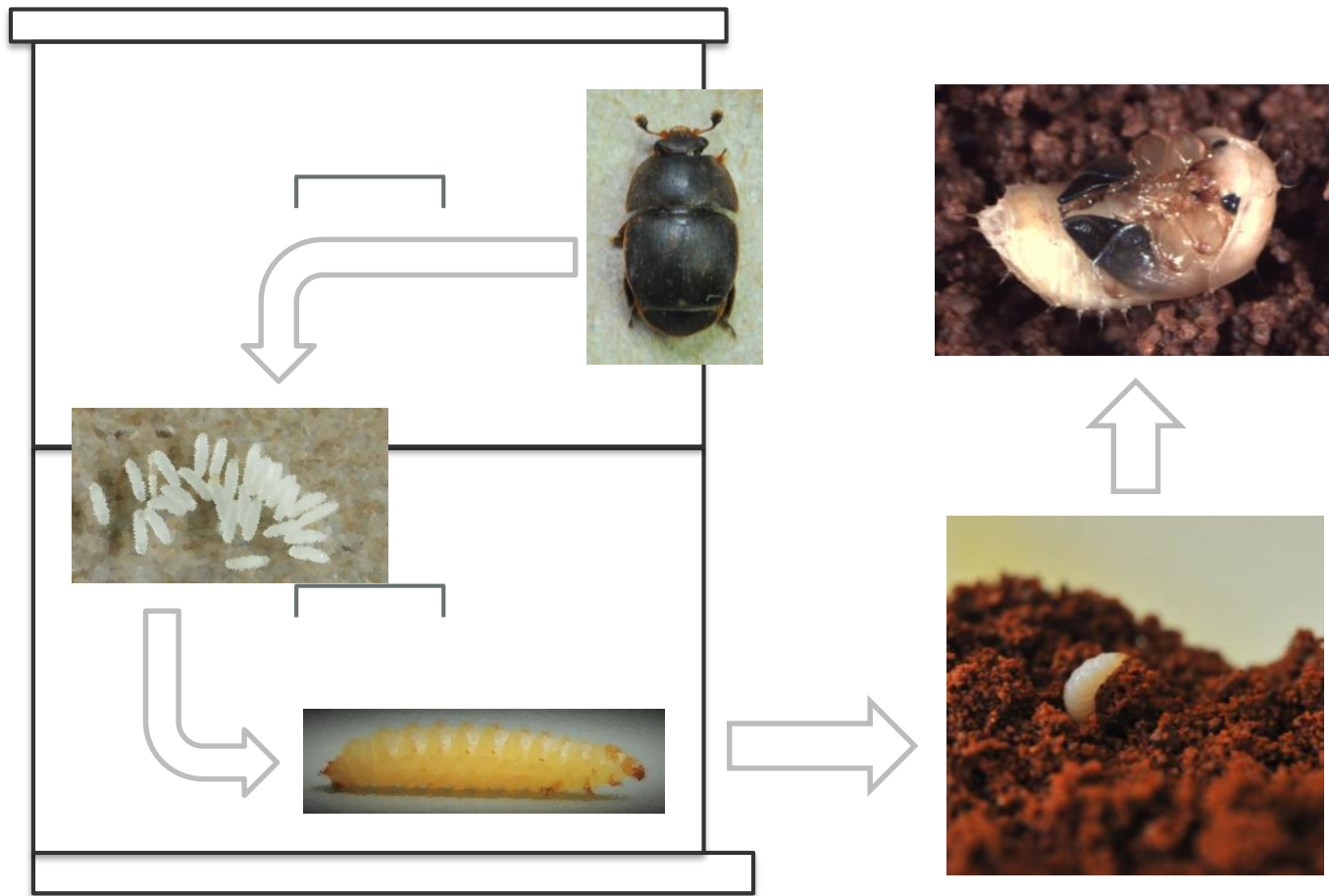


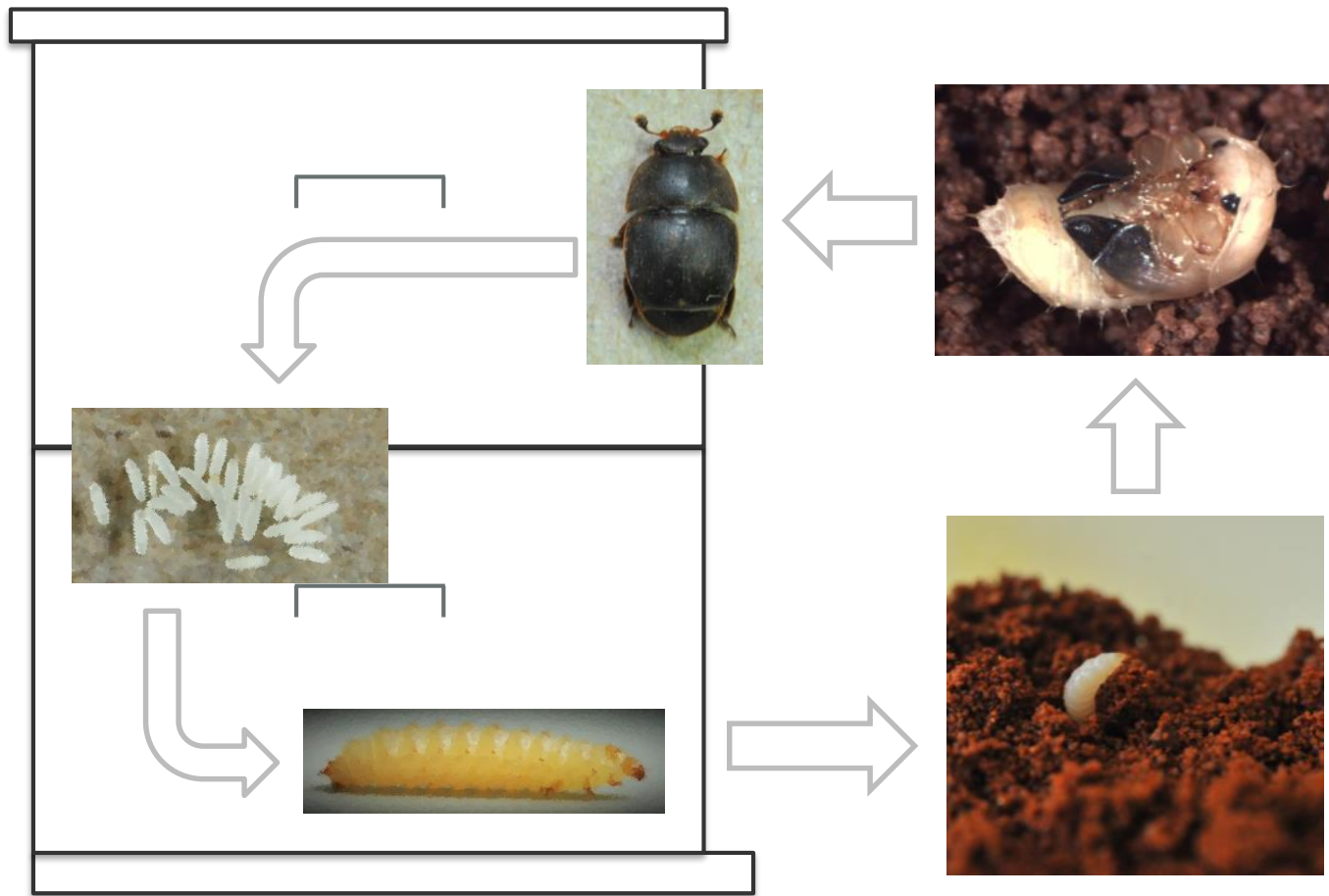






























CheckMite+
BEE HIVE PEST CONTROL STRIP

For Control of Varroa Mites and Small Hive Beetles in Honeybee Colonies

Active ingredient: Permethrin (3-(4-chlorophenyl)-2-methyl-1,3-dioxane) 40.0%
Inert ingredients 60.0%

Formulated by Mann Lake Ltd.
Mann Lake Ltd.
1211 1st Street South
Hemel Hempstead, Herts SG9 6JG, UK
Tel: +44 (0)1438 540000

**KEEP OUT OF REACH OF CHILDREN
CAUTION**

NET CONTENTS: 1 x 10 STRIPS (4 x 30 cm)

FIRST AID
Contains organophosphates that inhibit cholinesterase.

If on skin or clothing:

- Take off contaminated clothing
- Rinse skin immediately with plenty of water for 15-20 minutes
- Call poison control center or doctor for treatment advice

If in eyes:

- Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.

If swallowed:

- Call poison control center or doctor for treatment advice
- Call poison control center or doctor immediately for treatment advice
- Have person sip a glass of water if able to swallow
- Do not induce vomiting unless instructed to do so by the poison control center or doctor
- Do not give anything by mouth to an unconscious or convulsing person

Note to Physician: This product contains cholinesterase inhibitors. If symptoms of cholinesterase inhibition are present, administer atropine, by injection, in antitoxin. 2-PAM is also antitoxin and may be administered in conjunction with atropine.

HOTLINE NUMBER: Have the product container or label with you when calling a poison control center or doctor or going for treatment. For emergency medical treatment call 1-800-425-9874. For customer service or to obtain product information, including the MSDS, call 1-800-665-3796.

Ellis et al. 2010,
Bayer Animal Health, Mann Lake,
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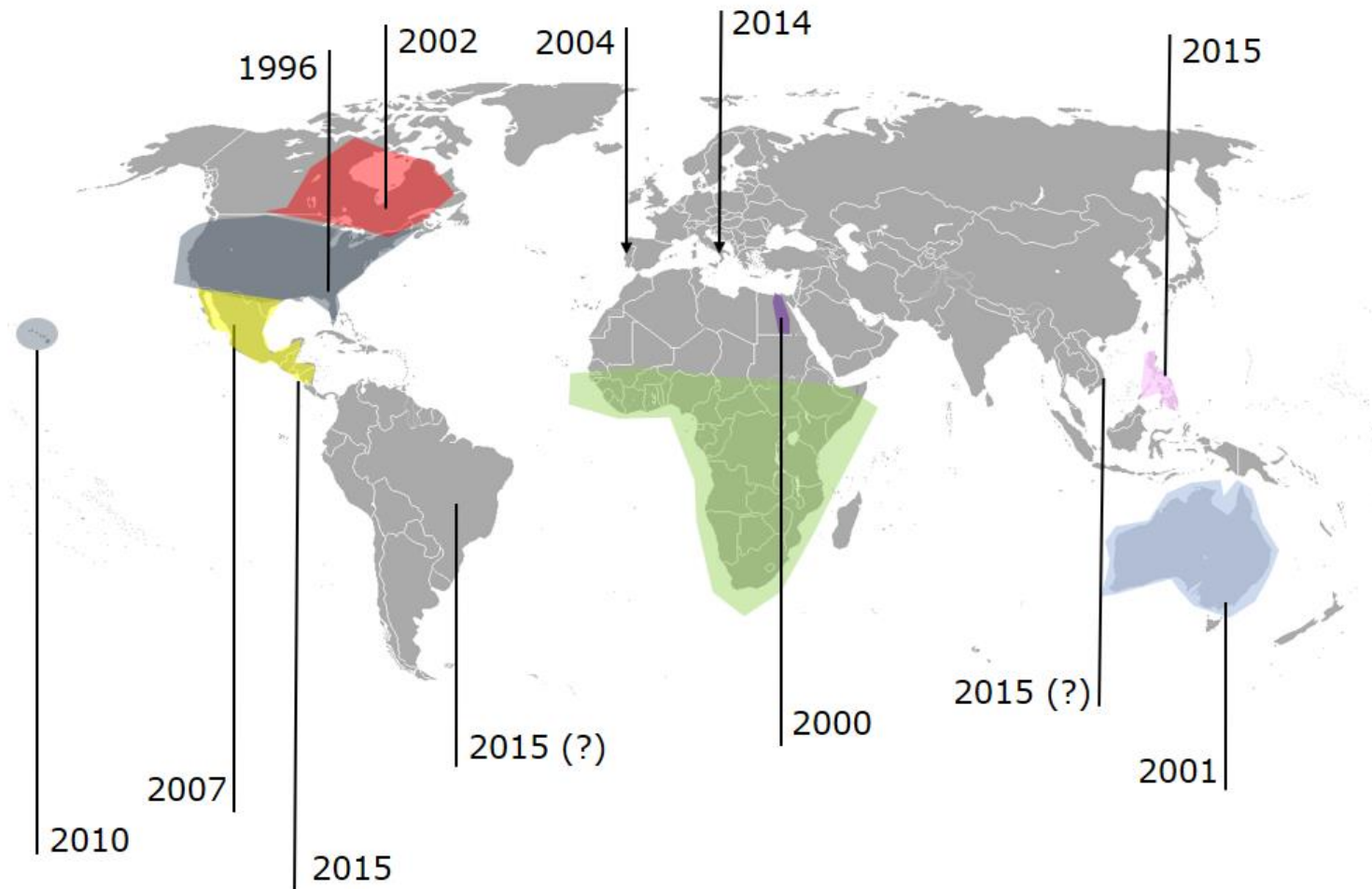






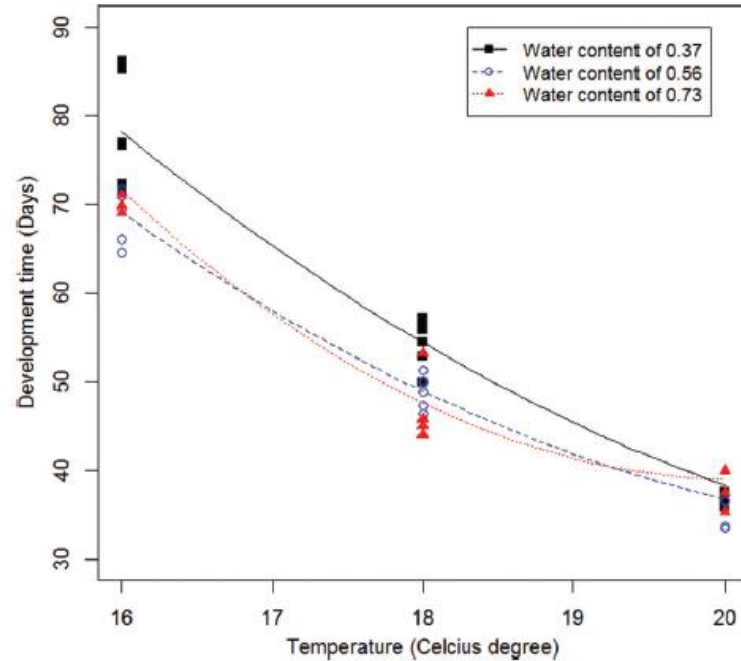
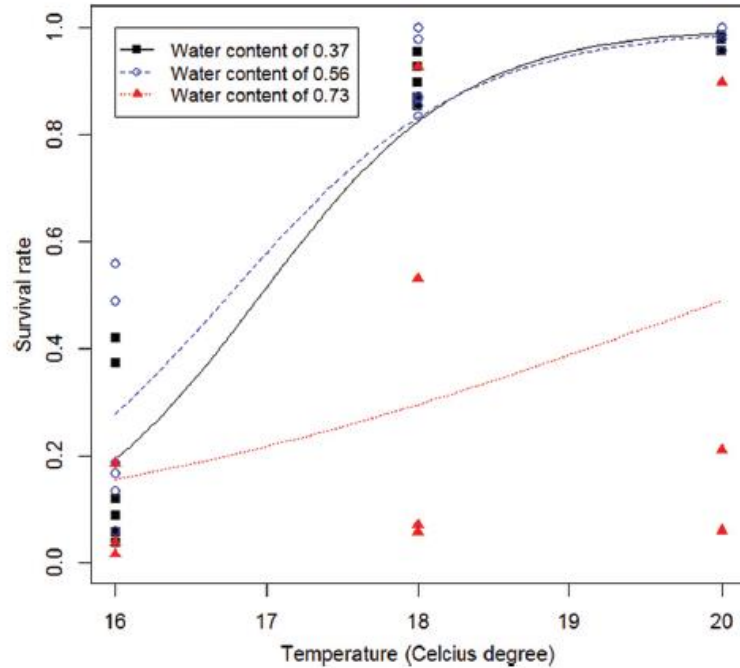
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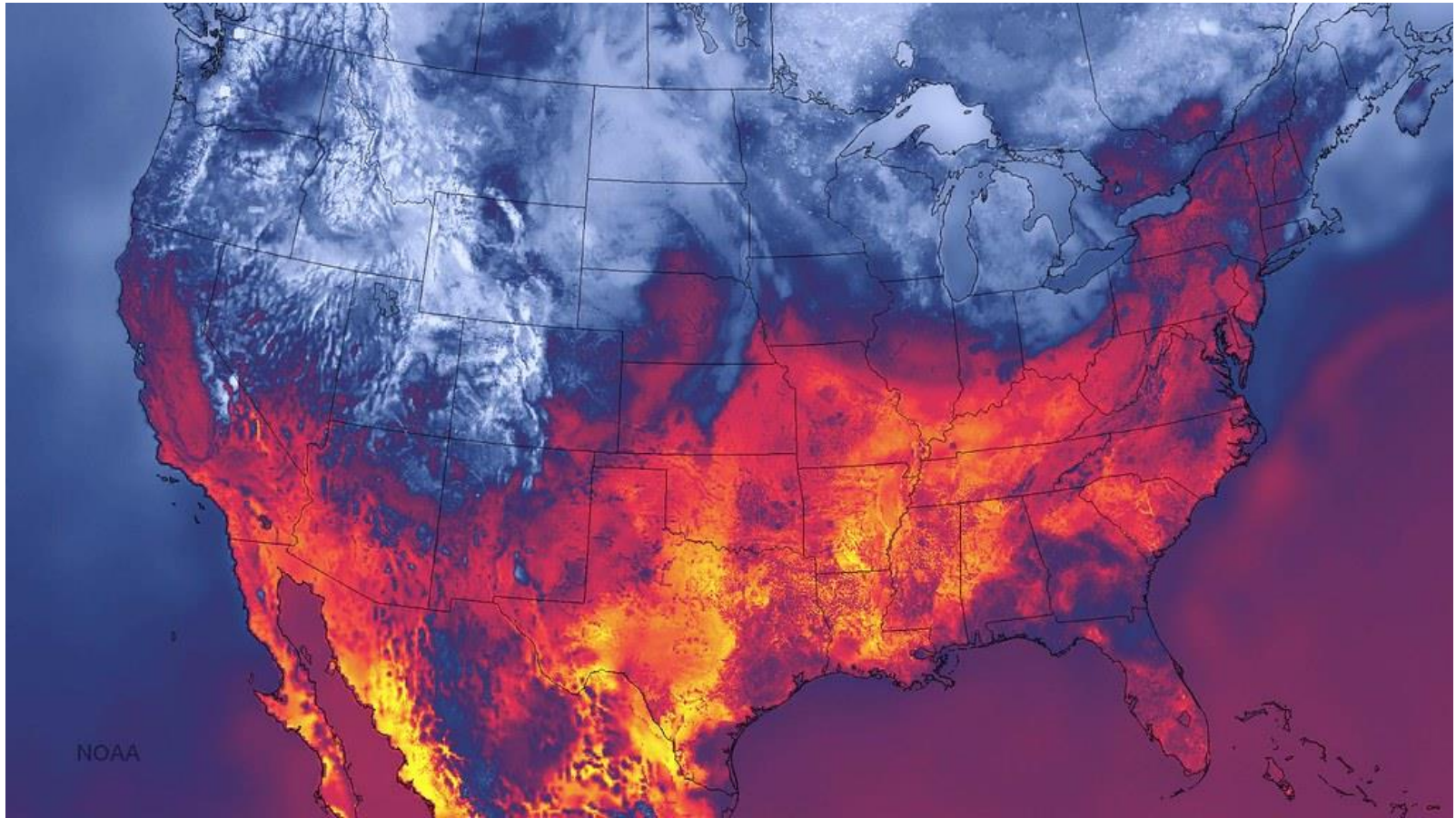




Pupal Development of *Aethina tumida* (Coleoptera: Nitidulidae) in Thermo-Hygrometric Soil Conditions Encountered in Temperate Climates

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UF/IFAS HONEY BEE
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