HAWAI`I BOTULISM OUTBREAK UPDATES
June 12 - 28, 2012

POINTS OF CONTACT: Please contact us if you need technical assistance or contact your DOFAW district office to report birds exhibiting signs of botulism or any dead bird.

<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
<th>Phone Number</th>
<th>Fax Number</th>
<th>Email address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joy Hiromasa Browning</td>
<td>USFWS - PIFWO¹</td>
<td>(O`ahu #s) 792-9400</td>
<td>(O`ahu #s) 792-9580</td>
<td><a href="mailto:joy_browning@fws.gov">joy_browning@fws.gov</a></td>
</tr>
<tr>
<td>Norma Creps</td>
<td>DOFAW²</td>
<td>(O`ahu #s) 587-0163</td>
<td>(O`ahu #s) 587-0160</td>
<td><a href="mailto:Norma.I.Creps@hawaii.gov">Norma.I.Creps@hawaii.gov</a></td>
</tr>
<tr>
<td>J. Rubey</td>
<td>HWJV³</td>
<td>(Hawaii Island #s) 217-6658</td>
<td></td>
<td><a href="mailto:Rubey@pcjv.org">Rubey@pcjv.org</a></td>
</tr>
</tbody>
</table>

¹ U.S. Fish and Wildlife Service – Pacific Islands Fish and Wildlife Office
² Hawai`i Division of Forestry and Wildlife
³ Hawai`i Wetland Joint Venture

MAUI: KANAHÄ POND WILDLIFE SANCTUARY

SUMMARY:

<table>
<thead>
<tr>
<th>Species</th>
<th>Age</th>
<th>Number of dead collected</th>
<th>Number of decomposed collected</th>
<th>Number of sick collected</th>
<th>Total number of birds collected</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ae`o</td>
<td>Adults</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>Ae`o</td>
<td>Chicks</td>
<td>32</td>
<td>2</td>
<td>1</td>
<td>43</td>
</tr>
<tr>
<td><code>Alae ke</code>o ke`o</td>
<td>Adults</td>
<td>2</td>
<td>7</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total Endangered</td>
<td></td>
<td></td>
<td>64</td>
</tr>
<tr>
<td>HADU-hybrid</td>
<td>Adults</td>
<td>12</td>
<td>7</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>HADU-hybrid</td>
<td>Juveniles</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>HADU-hybrid</td>
<td>Ducklings</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Laughing Gull</td>
<td>Adults</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>English Sparrow</td>
<td>Adults</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Rock Dove</td>
<td>Adults</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total Non-Endangered</td>
<td></td>
<td></td>
<td>32</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total Birds</td>
<td></td>
<td></td>
<td>96</td>
</tr>
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</table>

- Numerous specimens have been shipped to Dr. Thierry Work for necropsy. Results are pending.
- June 12, 2012:
  - Collected dead
• 1 adult HADU-hybrid (Hawaiian Duck- hybrid)
  1 chick ae`o (Hawaiian stilt)
  Collected sick
  1 chick ae`o; Rehab; Died on June 13, 2012
  1 adult `alae ke`o ke`o (Hawaiian coot); Rehab; Released on June 13, 2012

• June 13, 2012:
  Collected dead or decomposed
  10 chicks ae`o
  9 adult HADU-hybrids
  2 duckling HADU-hybrids
  1 rock dove
  1 English Sparrow
  Collected sick
  2 chick ae`o; Rehab; Died on June 13, 2012
  2 adult ae`o; Rehab; 1 still in rehab; 1 Died on June 15, 2012
  1 adult HADU-hybrid; Rehab; Died on June 13, 2012

• June 14, 2012:
  Collected dead or decomposed
  3 chicks ae`o
  2 adult `alae ke`o ke`o
  2 adult HADU-hybrids
  1 duckling HADU-hybrid
  Collected sick
  1 adult ae`o; Rehab; Died on June 14, 2012
  1 chick ae`o; Rehab; Released June 17, 2012
  1 ae`o; Rehab; Died on June 15, 2012
  2 juvenile HADU-hybrids; Rehab; Released on June 16, 2012

• June 15, 2012:
  Collected dead or decomposed
  2 chick ae`o
  1 adult ae`o
  1 duckling HADU-hybrid
  2 adult HADU-hybrids

• June 16, 2012:
  Collected decomposed
  1 adult ae`o
  1 adult `alae ke`o ke`o

• June 17, 2012:
  Collected dead or decomposed
  1 chick ae`o
HAWAI`I BOTULISM OUTBREAK UPDATE

- June 18, 2012:
  - Collected dead
    - 3 chicks ae`o
  - Collected sick
    - 1 adult ae`o; Rehab; Died June 18, 2012
    - 1 adult HADU-hybrid; Rehab; Released June 20, 2012

- June 19, 2012:
  - Collected dead or decomposed
    - 3 chicks ae`o
    - 3 adult `alae ke`o ke`o (1 `alae ke`o ke`o banded 1106-00025)
  - Collected sick
    - 1 adult HADU-hybrid; Rehab; Released June 20, 2012

- June 20, 2012:
  - Collected dead or decomposed
    - 2 adult HADU-hybrids
    - 2 adult `alae ke`o ke`o

- June 21, 2012:
  - Collected dead or decomposed
    - 3 chicks ae`o
    - 1 adult HADU-hybrid
  - Collected sick
    - 1 chick ae`o; Rehab; Died June 21, 2012

- June 22, 2012:
  - Collected dead or decomposed
    - 2 chicks ae`o
    - 1 adult `alae ke`o ke`o

- June 23, 2012:
  - Collected dead
    - 1 duckling HADU-hybrid

- June 24, 2012: No dead, decomposing, or sick birds found!

- June 25, 2012:
  - Collected dead
    - 1 adult HADU-hybrid (Hawaiian Duck- hybrid)
    - 3 chick ae`o (Hawaiian stilt)
    - 2 adult ae`o
  - Collected sick
• June 26, 2012:
  o Collected dead or decomposed
  ▪ 3 chicks ae`o
  o Collected sick
  ▪ 1 adult Laughing gull; Rehab; Released on June 28, 2012

• June 27, 2012: No dead, decomposition or sick birds found!

• June 28, 2012:
  o Collected sick
  ▪ 1 adult `alae ke`o ke`o (Hawaiian coot); Rehab; still in rehab

LĀNA`I: SEWAGE TREATMENT PLANT
• No updates to report.

MOLOKA`I: OHIAPILO
• Surveillance occurring in response to outbreak on Maui.

For additional information:
http://www.nwhc.usgs.gov/disease_information/avian_botulism/index.jsp
http://www.pcjv.org/hawaii