USGS Activity B6

Hurricane Mitch: Landscape Analysis of Damaged Forest Resources of the Bay Islands and Caribbean Coast of Honduras

By

Thomas W. Doyle¹, Thomas C. Michot¹, Fred Roetker², Jason Sullivan³, Marcus Melder³, Benjamin Handley³ and Jeff Balmat³

¹USGS, National Wetlands Research Center, Lafayette, LA. www.nwrc.ugsg.gov
²U.S. Fish and Wildlife Service, Lafayette, LA
³National Wetlands Research Center, Johnson Controls World Services, Lafayette, LA
Table 1. Forest damage classification scheme based on percent canopy displacement.

<table>
<thead>
<tr>
<th>Damage Scale Category</th>
<th>Percent Canopy Displacement</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>&lt; 20%</td>
</tr>
<tr>
<td>1</td>
<td>&gt; 20% &amp; &lt; 40%</td>
</tr>
<tr>
<td>2</td>
<td>&gt; 40% &amp; &lt; 60%</td>
</tr>
<tr>
<td>3</td>
<td>&gt; 60% &amp; &lt; 80%</td>
</tr>
<tr>
<td>4</td>
<td>&gt; 80%</td>
</tr>
</tbody>
</table>
Table 2. Predicted hours of sustained winds by storm category based on the Saffir-Simpson index for areas hardest hit on the mainland, Roatan, and Guanaja including maximum windspeeds.

<table>
<thead>
<tr>
<th>Storm Category</th>
<th>Mainland Coast</th>
<th>Eastern Roatan</th>
<th>Eastern Guanaja</th>
</tr>
</thead>
<tbody>
<tr>
<td>I – 76 – 95 mph</td>
<td>42 hrs</td>
<td>44 hrs</td>
<td>53 hrs</td>
</tr>
<tr>
<td>II – 96 – 111 mph</td>
<td>27 hrs</td>
<td>15 hrs</td>
<td>31 hrs</td>
</tr>
<tr>
<td>III – 112 – 130 mph</td>
<td>22 hrs</td>
<td>3 hrs</td>
<td>22 hrs</td>
</tr>
<tr>
<td>IV - &gt;131mph</td>
<td>0 hrs</td>
<td>0 hrs</td>
<td>20 hrs</td>
</tr>
<tr>
<td>Maximum Wind</td>
<td>130 mph</td>
<td>117 mph</td>
<td>159 mph</td>
</tr>
</tbody>
</table>