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12 All words of title in sentence case, insert (Order: Family), use either ESA-accepted common
13 name or Latin binomial, not both, and do not include the authority for taxonomic names

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25 **Abstract**

26

27 Left-justify the word Abstract. Do not indent the first line. Capitalize the first letter only.

28 Do not cite references, figures or tables in the abstract. The primary purpose of an abstract is to
29 explain to the general reader why and how the research was done and why the results should be
30 viewed as important. It should briefly provide the (i) background and purpose, (ii) methods, (iii)
31 results, (iv) conclusion(s), and (v) significance and impact as in the following example. (Note:
32 the following **bold** font words shown in this abstract are for guidance only; do not insert these
33 labels). **Background & Purpose:** The red palm weevil, *Rhynchophorus ferrugineus* (Olivier)
34 (Coleoptera: Curculionidae), is an economically significant pest of palm trees. By the time a palm
35 infested with weevils displays visible damage, larvae have destroyed much of the trunk's internal
36 structure, typically resulting in tree mortality. Acoustic technology may enable pest managers to
37 detect and treat early weevil infestations before tree mortality. This study was conducted to
38 determine the detectability of sounds produced by early instars in open, urban environments and
39 in enclosures with ca. 10 dB acoustical shielding. **Methods:** Recorded signals were analyzed to
40 identify larval sound impulse bursts, trains of 7-200 impulses, 3-30-ms in duration, where
41 impulses within the train were separated by less than 0.25 s. For a burst to be considered a larval
42 sound, it was specified that a majority of its impulses must have spectra that match mean spectra
43 (profiles) of known larval sound bursts more closely than profiles of background noise or known
44 nontargeted sound sources. **Results:** Larval bursts were detected in > 80% of palm fronds
45 inoculated with neonates the previous day. There were no significant differences between burst
46 rates in enclosed and open environments, but the shielding provided by the enclosure enabled
47 detection of early instars from greater distances. **Conclusions:** Thus, there is potential to use

48 acoustic technology to detect early red palm weevil infestation in either minimally shielded or
49 open environments. In addition, because late-instar impulses ranged to higher amplitude and had
50 greater diversity of spectral features than with early instars, it may be possible to identify late-
51 instar infestations based on the amplitudes and the diversity of sound features detected.

52 **Significance and Impact of the Study:** Larvae of all instars can be detected over distances of at
53 least 5-10 cm both in shielded and exposed environments. In quiet environments it seems
54 possible to detect early instars at distances up to 0.5-1 m, while late instars can be detected at
55 distances of 1-4 m. Step-wise procedures for identifying an weevil infestation in the field are
56 elaborated.”

57 Do not include literature citations in the Abstract. Avoid long lists of methods or detailed
58 explanations. Give the systematic authority at first mention of an organism’s Latin name, order
59 and family in the abstract and the text. Spell out all authorities except Linnaeus and Fabricius.

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61 Key Words: Type 4-6 key words other than words in the title.

62

63

64 **Resumen**

65

66 Left-justify the word Resumen. If you have prepared a Spanish translation place it here,
67 otherwise leave it blank. Do not attempt a translation unless you (or your translator) are fluent in
68 Spanish. The Spanish Abstract Associate Editor will provide a translation. A Portuguese
69 translation (Resumo and Palavras Chave) is also accepted.

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78 your manuscript. Type all text and captions as double-space. All text should be left justified. Do
79 not use hyphenation on line endings. Use 12 point font throughout manuscript. Do not use bold
80 and italic fonts except where absolutely necessary. Indent (0.5 inch) first paragraph of the
81 introduction; note that there is no heading for this section. The introduction should describe the
82 paper's significance. State the reason for doing the research, the nature of the questions or
83 hypotheses, and essential background. Give scientific name authority and taxonomic
84 classification (Order: Family) at first mention of the subject organism. Name plant viruses in
85 accordance with Fauquet & Mayo (1999). Citations in the text are included in the name-date
86 format: Jones (1986); (Jones 1986); Jones & Smith (1986); (Jones & Smith 1986); Jones (in
87 press); (Jones AF, Department of Zoology, Ohio State University, personal communication).
88 When two or more in-text citations are used, they must be separated with semicolons, e.g. (Ball
89 1970; Menendez 1980; Jones & Smith 1986). However several citations by the same author(s)
90 are separated by commas, e.g., (Jones & Smith 1986, 1992, 2014). Use “et al.” for 3 or more
91 authors, but do not italicize “et al.”. Provide evidence of acceptance for works “in press,”
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94 reference.

95 The structure of taxonomic manuscripts is different from the structure of regular research
96 papers. Please refer to the Taxonomic Manuscripts Formatting Template when preparing a
97 taxonomic manuscript.

99 **Materials and Methods** (16-point bold font)

100 Use metric units unless there is specific reason to include English units, then include the
101 English equivalents in parentheses. Report geographical coordinates as N 29° 45.084' W 82°
102 12.875' or as (S 30° 12' 16.4" W 64° 28' 30.9"). Do not abbreviate “liter/litre” except in units of
103 measure, such as mL, and μ L. Insert a spaced on each side of a mathematical operator, e.g., 3.75
104 \pm 1.1 g. Place the following in italic font: *t*, *F*, *P* but not *df*. Use the following format for
105 photoperiod: 14:10 h L:D. Names of countries, states, and provinces, with the exception of USA,
106 should not be abbreviated. Months are reported using the 3-letter system (e.g., Jan, Feb, Mar) but
107 in taxonomic reports use Roman numerals (e.g., 15-VI-2012). For other abbreviations, refer to
108 the Scientific Style and Format of the Council of Biology Editors.

109 The study design must be clear so the statistical analysis can be understood. The reader
110 should be able to easily determine information such as where the study plots were located, how
111 sampling was performed in space and time, what data were collected, what parameters were
112 calculated, and how data were analyzed. With complex studies, it may be appropriate to divide
113 the methods into separate units identified by subheadings, and then continue the subheading
114 organization into the results section.

115 Large-scale datasets, sequences and computational models should be deposited in one of
116 the relevant public databases prior to submission (e.g., NCBI-GeneBank) and authors should
117 include accession codes in the Materials and Methods section. Alternatively, material can be
118 included as “supplementary material”, in pdf format, via an “infolink” associated with the online
119 version of the manuscript. Supplementary material may include graphics, color photographs,
120 videos, etc. The need to upload supplementary material should be brought to the attention of the

121 editor before the manuscript has been sent to the printing company.

122 Statistical analysis should be described in detail. Cite the methodology or software used.

123 In regressions, specify the model, define all variables, and provide estimates of variance. Use

124 uppercase “N” for population size and lowercase “n” for sample size. Following is an example of

125 suitable description: Within each experiment, treatment effects were analyzed using repeated

126 measures ANOVA ($P < 0.05$) over multiple dates, and differences between treatment means

127 were distinguished using the LSD test (SAS Version 9.1, SAS Institute, Cary, North Carolina,

128 USA). Percentage data (mortality) were arcsine transformed and numerical data (insect

129 abundance) were square-root transformed prior to analyses. Non-transformed means are

130 presented in the figures.

131

132 Under Material and Methods use up to 3 additional levels of heading with the following formats:

133

134 EXPERIMENTAL LOCATIONS (all capital letters)

135

136 (Leave one blank line above and below heading.)

137

138 Spring Sampling Period for Immatures (capitalize first letter of major words; do not capitalize

139 first letter of an article, conjunction, preposition, or pronoun)

140

141 (Leave one blank line above and below heading.)

142

143 *Sampling Terminal Leaves.* (This lowest level of heading is indented and italicized; and
144 is followed immediately by the text. Do not insert a blank line above this heading.

145

146 **Results** (16-point bold font)

147

148 Results generally should be stated concisely and without interpretation, though with
149 complex studies modest interpretation of individual parts can provide context helpful for
150 understanding subsequent parts. Do not combine the Results and Discussion sections; keep each
151 as a separate section. Separate mathematical operators and units of measure from numbers with
152 one space (e.g., 3.75 ± 1.1 mm; $P = 0.05$), but not leave a space between a number and % (e.g.,
153 75%). However, a space should be inserted before the “degree” symbol (e.g., 27 °C). When
154 presenting the results of analysis of variance or t-tests, specify *F* or *t*, degrees of freedom and
155 probability level either in the text or table, (e.g., $F = 19.76$; $df = 1,28$; $P = 0.001$). Note that *t*, *F*,
156 and *P* are italicized, but *df* is not. An example for reporting regression is “The time required to
157 complete larval development was related to air temperature ($t = 3.15$; $df = 14$; $P < 0.001$). Larval
158 development time (days) decreased with increasing air temperature by the relation: $days = 3.2 -$
159 $(5.6 \pm 1.2 [SD])$ (°C).

160 Examples of figure legends and table captions are:

161

162 **Table 1.** The table caption should fully describe the table. It is left-justified.

163 **Fig. 1.** The figure legend should fully describe the figure. It is left-justified and indented 0.2
164 inches.

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166 Note that “**Fig. _**” and “**Table _**” are bold, but the remainder of the label is not. The figure label
167 is indented 0.2 inches.

168

169 Under Results use up to 3 additional levels of heading, as described above under Material
170 and Methods.

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172 **Discussion** (16-point bold font)

173

174 The discussion should explain the significance and impact of the results. The objectives
175 of the discussion include interpreting the results, especially in relation to the literature,
176 connecting the results to the objectives or hypotheses, and reflecting on the importance of the
177 results. Avoid excessive repetition of the Results.

178 Under Discussion, headings may be inserted as needed.

179

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182 Do not use titles before names. Generally, people precede grants. Spell out institutions. You may
183 include disclaimers such as “mention of trade names does not imply recommendation or
184 endorsement.”

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186 **References Cited** (16-point bold font)

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188 Put initials of ALL authors after the surname (family name) (e.g., Jones BJ, Smith CA. 2008.).
189 Do not use punctuation except for a comma to separate different names. Do not include “and”
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191 all information that would allow retrieval of the material including the volume and issue numbers
192 of the journal. Do not abbreviate journal names; spell them out entirely. The first letter of major
193 words is capitalized for journal titles and book titles (e.g., Journal of Economic Entomology;
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195 **Examples are:**

196 Jones JL. 2014. The title of a paper. *Florida Entomologist* 97(2): 111-115.

197 Jones JL, Smith SR. 2000. This is a chapter title, pp. 200-210 *In* White MM, White-Brown AS
198 [eds.], *The Big Bug Book*. Academic Press, London.

199 Smith SR, Jones JL, White-Brown AS. 2014. Another title. *Plant Protection* 99(2): 223-229.

200 Thomas MC. 2005. An exotic baradine weevil pest (Coleoptera: Curculionidae) of
201 *Amaryllidaceae* in Florida. Florida Department of Agriculture and Consumer Services,
202 Division of Plant Industry, DACS-P-01664, [http://www.freshfromflorida.com/pi/pest-](http://www.freshfromflorida.com/pi/pest-alerts/pdf/amaryllis-weevil.pdf)
203 [alerts/pdf/amaryllis-weevil.pdf](http://www.freshfromflorida.com/pi/pest-alerts/pdf/amaryllis-weevil.pdf) (last accessed 3 August 2014).

204 White MM, White-Brown AS [eds.]. 2011. *The Big Bug Book*. Academic Press, London.

205 Young JJ, Old BC. 2009. Predator-prey dynamics and strategies for control of citrus psyllid, pp.
206 123-130 *In* Proceedings of the 5th Meeting of the Florida IPM Working Group. Orlando,
207 Florida 9-12 March 2013.