



**Informationen zur Umwelt und für Naturreisende auf Kreta:**  
Information about the Environment and for travellers in Crete:



## **Red Palm Weevil (*Rhynchophorus ferrugineus*)** **German Bioacoustics technology detects the beetle plague!**

*Rhynchophorus ferrugineus* is not a term for English tourists, but a non-indigenous species of weevil, which, native in Southeast Asia and immigrated over Africa, leaves literally said "broken existences in the Mediterranean (and increasingly on Crete and the Balearic Islands). The maybug sized, proboscis armed insect rankles invisible through palm groves and leaves a trail of destruction as globalization disillusionment. In the style of "The very hungry caterpillar" the Red Palm Weevil rankles (see fig.) through the leaves of the plant and rages as well in the strain. A few days later the infested Palm dies off (see fig.) and crashes. It is hard to get the beetle with chemicals; he can exclusively be killed in the larval stage. Following the motto: "What looks like a Palm is a Palm and we go inside", the beetles drill small caves in the strain just below the Earth and tiny holes in the nodes and deposit their eggs. In the cover of the tough Palm stem then grows, in joyful consumption of the plant inner life and externally completely unnoticed, a new generation of weevil. An early detection of infestation is therefore probably the only effective antidote probate.



With a unique high-tech listening system of the German Bioacoustics Company BvL ([www.laartech.biz](http://www.laartech.biz)), infested plants can be identified in the early stages by the extremely weak noise of the Palm Weevil larvae (see fig. page 2) and not when the snack artists have completed their destruction. The detector (see fig. page 2) works with 80 decibel gain, i.e. increase the feeding sounds to "Jet level". Fast and consistently acting is needed after the screening. After determined of the propagation direction via satellite location, the Palm trees is felled and disposed in situ. A burn on the site is the safest method of disposal here, to prevent further outbreaks. Transport of felled, "contaminated" Palm material on open trucks and "Disposal in Botany" leads to a further, large-scale spread of the pest. The BvL devices were used in Greece, except in Crete, also on Rhodes.



With pesticides which kill everything around (including the predators of the Palm Weevil) the beetle is not to tackle; he is protected by the strain.



Often attractant traps are incorrectly used; they entice the beetles in masses.

#### Entomological keyword:

Palm Weevil belongs to the family of *Curculionidae* (weevils), which worldwide 40,000 60,000 species belong to; about 1,200 species are described for Europe. The weevils are probably the largest family of all living beings. Like the butterflies they undergo a complete metamorphosis from egg to the larva and and doll to the final insect. Beetles and larvae (almost all species) are Phytophagous, which means, they feed on plants. Weevils can reach sizes of 1.3-20 mm (depending on type) and are clearly identifiable on the rostrum ("proboscis"). The antennae are mostly geniculate: the first link (= Antenna stalk) is greatly extended, followed by the angled appointed multi-nominal antenna whip. The colour of body varies according to the type and is covered with scales (much like the butterfly body). The legs are strongly developed; the feet are five-nominal. The foot bottoms are densely hairy. The beetles (usually) pass through only one generation per year. Wintering occurs frequently after the Metamorphose.

For further information about the Red Palm Weevil see Wikipedia at: [http://en.wikipedia.org/wiki/Rhynchophorus\\_ferrugineus](http://en.wikipedia.org/wiki/Rhynchophorus_ferrugineus)

The oldest bug was discovered incidentally 1944 in Tshekarda in the Urals (Russia) in layers of the Permian age. This geological period lasted from about 290 and 250 million years ago today. The find from Tshekarda received the generic name of *Tshekardocoleus*.

