The Remarkable Hearing of the **Greater Wax Moth**

THE greater wax moth can hear high-pitched sound better than any known creature in the world. Yet its ears are very simple in structure, each being about the size of a pinhead.

Consider: For years, the greater wax moth's hearing has been a subject of study. More recently, scientists at the University of Strathclyde, Scotland, tested the moth's hearing with a wide range of sounds. They measured the vibrations of these tympanal membranes and recorded the activity of their auditory nerves. The "eardrums" still responded when exposed to sounds at a frequency of 300 kilohertz. By comparison, bat echolocation has been recorded at up to 212 kilohertz, the hearing of dolphins peaks at 160 kilohertz, and humans do not hear beyond 20 kilohertz.

Researchers would like to use the superior hearing capability of the greater wax moth as the basis for new technology. How? "To help make better, and smaller, microphones," says Dr. James Windmill of the University of Strathclyde. "These could be put in a wide range of devices such as mobile phones and hearing aids."

What do you think? Did the remarkable hearing of the greater wax moth come about by evolution? Or was it designed? ■