**8f Page 103 VIDEOSCRIPT**

Intermediate Student’s Book

Life

Killer bees

**Part 1**

**00.16–00.43** For thousands of years, an insect has kept the rain forests of Central America alive. It’s one of the smallest and least understood creatures on Earth – the bee. Now, a foreign species of bee has invaded these rain forests. One man believes that this foreign bee may cause problems for the whole rain forest. He’s ready to take any risk to find out the truth. This man is entomologist David Roubik.

**00.48–01.20** Roubik has spent much of his life studying bees. He’ll go anywhere to get closer to his favourite creatures. Roubik has studied bees for over 30 years, so he’s one of the world’s leading experts on native bees. He works deep in the rain forest of Panama. This has allowed him to become more familiar with them than almost anyone else. When Roubik talks about the bees and his studies, it’s clear that both are very interesting to him.

**01.21–01.55 David Roubik** I’ve counted more than 300 different species of bees in just one small forest area in Panama. It’s just in a square kilometre of forest, but there might be a million or more individual bees! And this is really about the best place in the world to do the kind of work that I’m doing. They interact with everything. They pollinate the plants. They provide food for a lot of different animals. They live in the most outlandish, interesting places, from the top of the rain forest canopy to holes deep underground. So, it’s a wonderful group to look at.

**01.56–03.05** Unfortunately, Roubik thinks that the future of these amazing native bees looks bad. Little by little, people are destroying their rain forest habitat. People are also responsible for something that Roubik sees as an even more immediate environmental problem, one that’s the result of a scientific experiment that went terribly wrong. In 1957, a group of scientists in South America wanted to improve honey production. So, they started studying a bee that was non-native to the area – the African honeybee. The African honeybee is far more adaptable than most native species. It can reproduce very quickly and develop large swarms in a short time. But, if anything bothers it, it can become very dangerous! At first, the study proceeded normally. Then, one day, some of the African honeybees escaped. Something that at first seemed to be a bit of bad luck eventually became a very costly mistake. The hungry African bees spread quickly throughout South America and were soon known as ‘killer bees’. They got the name because of their large swarms, angry behaviour, and potential to hurt people by stinging them repeatedly.

Life

**Part 2**

**03.06–03.34** Roubik went to Panama in 1979 to find some answers to the killer bee problem. People were worried about how the bees would affect the environment. By 1982, this powerful foreign bee had crossed almost the entire South American continent. It was starting to make its home in Panama. Roubik realised that the life of the rain-forest and its native bees were in danger. They’d never be the same again. The ‘killer bees’ had arrived.

**03.35–04.06** According to Roubik, the newspapers and television mostly talked only of a group of ‘killer bees’. He says that they invented this story for excitement, but they didn’t really discuss the important story. The biggest danger was not to man, but to the future of the Latin American rain forests. Native bees are pollinators that play an important role in making all plants reproduce. Without the native bees, Roubik was worried that the rain forests couldn’t survive. To understand the true effects of the killer bees, Roubik must study them up close.

**04.07–04.41 David Roubik** This is one of the millions. These bees have done something no other bee ever did. These things have sucked up most of the resources that are out there for bees – and for other animals too – not just bees visit flowers for food. Birds, bats, butterflies – other things take the same food. And it’s not just here and there, it’s really everywhere. All the vast forest areas we think of as absolute wildlife preserves have been violated by this bee. This bee doesn’t belong in any of them, it lives in all of them. It’s not going to go away.

**04.42–05.26** Roubik has also discovered what the real danger with the invading bee is. It has better skills for finding food and for taking over areas quickly. Because of its large numbers and strength, the killer bee has little to fear from most creatures. Roubik knows that nothing will likely stop the advance of the killer bees here. But will the native bees of Panama be able to compete with their hungry new neighbours? The sight of native beehives with no native bees seems to tell a warning story: there is no honey here. Still, Roubik needs to know for sure, so he goes to a place called Tulum, Mexico.

Life

**05.27–05.40** Tulum is one home of the Maya, an ancient culture from Mexico and Central America. Here, Roubik hopes to find data that indicates just how much of a danger the killer bees really are.

**05.41–05.49 David Roubik** My data would only reach back 15 years, but I needed someone with even more experience with native bees. That’s what the Maya in particular had to offer.

**05.50–06.15** Roubik further explains that the native bee has been an important part of Maya culture for over 1,000 years. If there was any change in the bee population, they would likely know. The descendants of the ancient Maya have always kept native bees in the traditional way – until now. Modern-day Maya farmers now believe that the killer bees have caused huge changes.

**06.17–06.26 David Roubik** Fifteen years ago, the honey used to jump out at you. Take off the hive cover and there’d be honey right out to the edge. Now, I can reach half my arm in and there’s just space.

**06.30–06.37 David Roubik** These people noticed, in terms of two or three years after African bees arrived, their native bees and their honey were not there.

**06.38–06.49** Roubik has finally proved an important point: the African bee appears to be forcing out native bees. It’s an absolutely terrible discovery for the entomologist.

**06.50–06.59 David Roubik** The disturbing reality is that, it is not a natural part of this community. Yet it has become part of nature, and ironically, man has put it there. But man can’t take it away.

**07.00–07.20** Nobody really knows if the native bees of Latin America will survive, and it may take many years to find out. However, deep in the heart of Panama, David Roubik continues his research. He intends to learn more about the secrets of native bee life before it’s too late.

Life