EPISODE 1: *INVADERS*

Premiering Wednesday, April 20, 2005 at 9pm (check local listing)

Strange transformations are taking place around the world because of alien invaders. People in New Orleans no longer trust the floor beneath their feet. Their houses are collapsing, under siege by voracious termite hordes that scientists suspect began their journey half a world away.

In Tokyo Bay, General Douglas MacArthur presided over Japan's formal surrender in World War II. U.S. forces in Japan and China packed up to return home, making crates from local wood. The crates wound up in garbage dumps near military bases in the American South. But the discarded containers were not necessarily empty—they were likely teeming with stowaways—aliens in the form of Formosan subterranean termites. Over time, the dangerous broods built up their numbers throughout New Orleans.

Given the magnitude of the infestation, scientists are now working to slow down the beasts devouring the city by locating their supply lines. To control the termites, scientists hope to exploit one aspect of the insects' lives. Colonies are intensely social—a quality that explains the success of all termites. Most importantly, this means they share food. Using bait stations buried in locations across the city, scientists replace wood bait with poison-soaked paper. Workers carry it back to colony headquarters. In as little as three months, the nest could be destroyed.

Meanwhile, in Uganda, an alien interloper may be jeopardizing the very health of the people living near Lake Victoria. Cases of the tropical disease schistosomiasis have been on the rise and scientists suspect the alien water hyacinth plant is partly to blame. In a short time, this weed has clogged 80 percent of Uganda's shoreline, providing an ideal breeding ground for snails hosting this deadly disease. In addition, as the snails multiply, fish life suffers under the suffocating blanket of weeds. And when the weeds rot, the drinking water coming straight from the lake is fouled, further weakening the health of all the lakeside inhabitants.

At his laboratory on the outskirts of Uganda's capital, researcher James Ogwang looks for a way to fight the invader. The weed has taken over, Ogwang believes, because it left its predators behind in its native Brazil. His theory: Why not import natural enemies?

Using a technique known as bio-control, Ogwang and his team carry 1,200 weevil insects to Uganda. After making sure the weevils do not have a taste for local crops, Ogwang's team breeds their insect army and release it into the waters, where it eats and depletes the plants.

At the same time, in Hawaii, a foreign species of plant threatens to remodel the landscape. Botanists are tracking a plant called *Miconia* that left its native Mexico on a ship bound for Europe in the mid-1800s. In 1961, a botanical garden in Hawaii welcomed *Miconia* as a gift. Soon, the plant was being sold at nurseries, where it became a popular decoration. Its escape from backyards was facilitated by way of another introduced species, the Japanese white-eye, a bird that excels at spreading seeds. Now, only 40 years later, the invasive plant has spread over 10,000 acres on the Big Island and is shading out the native species. In its takeover, *Miconia* replaces the natives' deep roots with its own shallow root system, placing the steep slopes of Hawaii at grave risk of landslides.

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To combat *Miconia*, researchers use state-of-the-art detection devices to map its growth in forests then uproot the plant, region by region.

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