

Count every living thing, III

By **Jon Carroll** Published 4:00 am, Thursday, October 4, 2001

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The story so far: Stewart Brand and his plucky band of adventurers at the **Long Now Foundation** have gotten seed money to start the **All Species Foundation**, or ALL, a mildly ambitious project to count and name every species on Earth within 25 years. Since no one at Long Now is a trained taxonomist, the group hired **Brian M. Boom**, former second in command at the New York Botanical Garden, to be the CEO of the new organization, headquartered at the Presidio. He started work last month.

IT IS POSSIBLE to see Brian Boom as hopelessly square. He looks like a stereotypical botany professor -- short, balding, neat -- but he talks with daunting intensity and disarming sincerity. He spent years doing field work under extremely harsh conditions in Ecuador, Bolivia and Venezuela.

Like Brand, Boom sees ALL as a catalyst, a small, swiftly moving organization putting people in touch with people, and putting people in touch with ideas. And like writer and editor **Kevin Kelly**, he believes that amateurs, what Kelly calls "barefoot taxonomists," have a substantial role to play in 21st century biology.

"You don't need people with Ph.D.s to collect specimens and tell you what they are," Boom said. "In every place I've worked, there have been indigenous people with a deep understanding of their own environment -- the names of the plants, where they grow, what they're used for. Our challenge is to do a country-by-country assessment and find those people."

KELLY, AND other people in the Long Now orbit, are committed to the notion that new tools will solve current bottlenecks. "Suppose," said Kelly, "that you could identify a species in the field. Suppose you had a small device that would process the animal or plant, inventory its characteristics, check the characteristics against its database and tell you whether you had a new thing or not."

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John McCosker, the ichthyologist who's been involved with ALL almost from the beginning, called that idea "Kevin's Mr. Coffee: You put the bug in the top and, zip, instant taxonomy." But Boom was intrigued. "New tools can be incredibly important," said Boom. "Already a taxonomist in the field has a GPS box, and a laptop, maybe even an Internet connection if he can find a satellite through the rain forest canopy. I don't rule anything out. Clearly, at the pace we are talking about -- 90 percent of the Earth's species in a generation -- we need to do things a different way."

This sense of urgency drives a lot of biologists. The rain forest is being destroyed; the coral reefs are dying from pollution and predators of opportunity; the northern forests are being logged. The events of Sept. 11 do not change this; the planet is under attack even as humans attack each other.

ONE OF THE most daunting challenges to ALL is based in human psychology: Most unidentified species are not big-eyed furry creatures or majestic birds; they are tiny brown beetles and fungi that look like ant vomit. And yet they are as important a part of the ecosystem as spotted owls or gray whales or pandas. As **Richard Pyle**, a member of the ALL advisory board and a deep-sea explorer and ichthyologist attached to the **Bishop Museum in Hawaii**, said:

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"The life forms we hope to document are disappearing faster than we can document them. Unlike many other of humanity's great endeavors, the documentation of all species is a race against time. Human impacts to the environment are driving legions of species to extinction. We can't know that a species has gone extinct until we know it exists. How can we estimate the cost of this global extinction when we are only aware of a small fraction of what we've lost? We owe it to future generations to document these species before they are gone."

What we're talking about here is saving the planet. Let's keep it our secret.

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