

Count every living thing, II

By **Jon Carroll** Published 4:00 am, Wednesday, October 3, 2001

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The story so far: Earlier this year, a small group in San Francisco, including author and futurist Stewart Brand and editor **Kevin Kelly**, conceived the idea of ALL, the **All Species Foundation**, a modest little plan to name and count every living species on Earth, a number that may approach 100 million, in a mere 25 years. The project would, they hoped, promote biodiversity while quantifying it. But they needed to find out whether their insanely ambitious dream would meet with any real-world support. .

THE **NASCENT GROUP** was headed by **Ryan Phelan**, whose expertise is medical databases and whose special skill is bottom-line entrepreneurial smarts -- always useful in a group of Big Dreamers. She took the idea to **John McCosker**, former director of the **Steinhart Aquarium**.

He was enthusiastic -- the first real scientist to express an interest -- and so they convened a meeting of many of the biggest guns in the worlds of biology and taxonomy. The list of attendees is available at www.all-species.org.

"The amazing thing to me," said Brand, "was that a lot of these guys hadn't met each other. Everybody was impressed to be in the same room with all the other somebodies in the room."

The 35 scientists thrashed out some of the problems that such an inventory might face. There were bottlenecks everywhere -- in the field, at the museums, in the publication process. The old bag it, tag it, ship it and forget it methodology was still the norm. Legend has it that at the **British Museum**, there are still unidentified species on the shelves that were collected by **Charles Darwin**. The pace of identification is glacial, much slower than the rate at which the most biodiverse habitats are being destroyed.

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Plus, a controversy was raging in the hermetic world of taxonomists. The old Linnean system, the genus-and-species designation (*Homo sapiens*, *Felis catus*) that had been invented in the middle of the 18th century, was thought to be hopelessly outdated by advances in genetics. A new system, called PhyloCode, was being championed. How are you going to identify all the species on Earth if there's no general agreement about what to call them?

AND THERE WERE political problems. What is often called "bio-prospecting" --

searching for cancer cures or high-yield food in Third World countries -- had made some nations justly suspicious of pale taxonomists with unknown agendas. Plus, some of the richest places on Earth were also some of the most unstable -- Colombia, for instance, or Congo. Taxonomists have always been brave people, risking disease and maximal discomfort, but they are not foolish. No beetle is worth a life.

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In the end, though, the verdict was unanimous: Go for it. One of the scientists there, Dr. **Evert Schlinger**, an entomologist attached to the **California Academy of Sciences**, put up \$1 million in seed money to get the project under way. "The enthusiasm was overwhelming," said Phelan, "but so was the job. We knew we were over our heads. Maybe we could raise a billion and maybe we couldn't, but we needed a CEO. So we wrote an ad."

BRIAN M. BOOM, the vice president for botanical science and Pfizer Curator of Botany at the New York Botanical Garden, was lying in bed one night reading a copy of the journal *Science*. His eye was caught by a small ad in the back of the magazine:

"All Species CEO Search. The Goal of the All-Species Inventory is to catalog every living species on earth within one generation (25 years). . . . Every once in a while there is a chance to do something grand and good -- send a human to the moon, or sequence a genome. For the right person, making the first inventory of all living species is that chance."

Boom put the magazine down. "That's my job," he said to his wife. "That's what we're doing next."

Tomorrow: Boom time.

The exciting slow-paced world of taxonomy, and how to have fun there.

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