Systematics in Action

Much of the work of the Ichthyology Department here at the American Museum has to do with describing new species. I've said that about 200 new species are discovered each year. And that's the sort of exciting side of it: You go out into the field, you collect, and you get material, get the specimens that you see in our collections here. But what's the science behind it? Where do we go from there? Where do we publish these results, or how do we publish these results? Because, after all, science as an endeavor in and of itself can be great fun to do and can be very enjoyable, but unless you publish your results, no one is ever going to benefit from what you know, and no one is ever going to know what you know. So publication is a very important part of being a scientist. For example… I've done a lot of work in Madagascar. Madagascar is an extraordinary island; it's in the Indian Ocean; it's off the coast of Mozambique, in Africa. And this glorious island has been isolated from Africa for about 100 million years. The fishes that are on Madagascar are really magnificent animals; I'm completely mad about them. But they are tremendously interesting because they occupy a very important phylogenetic position. That is to say, the fishes of Madagascar seem to represent the closest thing we have to the ancestors of their relatives in other

parts of the world, for example, in Africa and South America. So these fishes on Madagascar are really rather critical if you want to study evolution.