University Success

ORAL COMMUNICATION

INTERMEDIATE TO HIGH-INTERMEDIATE LEVEL

MyEnglishLab AUDIO SCRIPT

PART 1 | Fundamental Oral Communication Skills

BIOETHICS

Active Participation

SKILL 1

MORE PRACTICE

Student A / Josh: Hey there, Rima. Pretty challenging lecture, huh?

Student B / Rima: Yeah, I had trouble getting some of the main points. The professor talked about so much.

Student A: He did. Anything I can help with?

Student B: Well, what's the difference between an "endangered" species and a "vulnerable" species? I didn't get it.

Student A: There's a slight difference. Remember how the professor said that there are several categories for threatened animals? He went on to describe the categories: We use "endangered" if a species is likely to become extinct. "Vulnerable" species are in less danger.

Student B: I see. So, they're more "technical" categories for conservationists: "endangered" is worse than "vulnerable."

Student A: Exactly.

Student B: Yeah, I didn't get that.

Student A: Well, you've got to listen for the professor's cues—you know, like the language he uses to introduce an idea. For example, remember how he said at the beginning of class that there were four categories? Then later, he was like, "First, let's look at blah blah blah." And later he said, "Next category." Then he gave a specific definition for each. He used "first" and "next" show that he was separating them.

Student B: Yeah, I understand that. But it's not so easy when you're listening and trying to take notes at the same time! Anyway, it's a great class.

Student A: I agree. What do you have next?

SKILL 2

MORE PRACTICE

Student A: Professor, the concept of *Lazarus taxon* doesn't make any sense to me. How could a species disappear and then reappear?

Professor: Well, a *Lazarus taxon* doesn't really "disappear"—it's more like we can't find it. We talked about an example in class. The coelacanth disappeared from the fossil record about 66 million years ago.

Student A: I'm not all that familiar with fossils. What does that have to do with *Lazarus taxon*?

Professor: So fossils are the preserved remains of animals that died a long time ago. But it's unlikely that an organism would fossilize—because conditions have to be absolutely perfect for a fossil to form. In the case of the coelacanth, we knew it existed before 66 million years ago because of the fossils we found—but not after that. So, we thought the coelacanth went extinct because the fossils stopped being created. But as it turns out, the species has existed the whole time.

Student A: I see. So scientists didn't know the coelacanth was still alive—meaning it didn't actually "reappear." We just found it again.

Professor: Exactly. You know, when you've got a question like this in class, you should raise your hand and ask it. There's probably someone else who has the same question but is afraid to ask it. Asking questions in class not only helps you but probably helps someone else as well.

Student A: OK, but I sometimes prefer asking in person—I think I learn more that way. Anyway, I'll ask in class next time. Thanks, Professor.

INTEGRATED SKILLS

MORE PRACTICE A

From Student Book SKILL 1, Exercise 2A *page 5*

Professor: Hello everyone. I hope you all had a good weekend. Let's get started. For today's class, we'll be discussing conservation. Specifically, we'll look at threatened species—groups of animals that are in danger of being killed off completely—and the categories that they are put in. I don't know if you heard or watched much news last week, but there was a troubling report: Animal populations have fallen 64 percent since 1970. So today's topic is something that is very important.

The report was from the IUCN, which is the International Union for Conservation of Nature. This organization follows the health of animal populations. Now, to fully understand the importance of the report, you have to understand how the IUCN defines the "health" of a species. It defines it by looking at how much risk a species is facing—"risk" here meaning "danger." And it puts the species into a risk category. We'll talk about four of those risk categories today: low-risk, vulnerable, endangered, and extinct. These categories are used by researchers like myself and policymakers to understand what's happening and make conservation policy. In my opinion, we have very little time left to prevent a mass extinction. That is, the end of—the death of—many plant and animal species. Understanding today's class is of great importance for young researchers and conservationists like all of you.

So, first today, we'll look at the IUCN's categorization system—specifically, how it decides if a species is endangered, vulnerable, et cetera. Then, we'll go into how that system—how having categories—is used for conservation policy. And toward the end of today's talk, we'll take a look at some specific examples of endangered species and how to protect them. We'll look at the Siberian tiger—a species that once lived all over Northeast Asia but is now down to only about 250 adults. We'll also discuss the loggerhead sea turtle, which has been falling in number in recent years. But—a little good news here—now people are protecting the turtles' breeding grounds worldwide.

APPLY YOUR SKILLS

A CLOSER LISTENING

From Student Book LISTEN A and C *page 21*

Professor: So, we've talked about how conservation efforts can prevent extinction, but what happens after a species has died out? Is there anything we can do to undo extinction? Years ago, scientists would have said no. But now, with advances in biotechnology, we have started thinking about bringing extinct species back to life. This is called de-extinction. Many people think there are advantages, but others think it creates problems. We'll talk more about that in a little bit.

First, there are a number of health and environmental concerns about de-extinction. The concern is that de-extinction could have too many unknown consequences. In other words, that today's species and ecosystems could be harmed or damaged by bringing back to life an animal species that went extinct thousands of years ago. Maybe that animal will cause the extinction of other animals—and that could further damage the environment. Also, reintroducing a species has possible health risks for animals and humans. We know that some animals—most notably, rats—have spread diseases in the past. Diseases that have led to the death of millions of people. It's possible that a reintroduced species would cause similar problems.

Second, there is an ethical problem: De-extinction might make people think that a species can easily be brought back to life. This could lead people to focus on de-extinction as a way to bring back lost species. Instead they could be looking for ways to preserve living species that are vulnerable or endangered now. De-extinction, they say, will stop us from looking for solutions: how we can prevent the extinction of current species.

Now, I'd like to briefly explain how the process of de-extinction works—mind you, this is one way we think de-extinction can happen; we haven't done it yet. So first, scientists examine the genome—the DNA, the whole biological set of instructions—of an extinct animal. After they've understood the extinct animal's DNA, they then compare it to the DNA of a similar living animal. Next, they genetically engineer the DNA of the existing animal so that it becomes like that of the extinct animal. That is, they use technology to change the animal's DNA. The result is a "hybrid"—an animal that gets most of its DNA from a living animal but has some DNA of the extinct animal. High-tech engineering, huh?

To summarize what I've discussed so far, de-extinction—the process of bringing extinct species back to life—is a controversial idea in conservation biology. Its supporters believe that it can help fix damaged ecosystems and also give us important knowledge about why species become extinct in the first place. On the other hand, critics say that there may be unexpected negative consequences of bringing species back to life: We don't know what will happen. So we should focus on conservation, they argue. And I agree, we should focus on traditional conservation. We've also taken a look at one way of approaching de-extinction: creating hybrid animals that have the DNA from both living and extinct animal species.