

Slide 1:

- Welcome to my presentation “Biology from a French Perspective.” My name is Rain Bugado and I am a Biology major with a French dual major. This project involved me reading scientific news articles in French, and which I decided to do in order to connect my two majors.

Slide 2:

- The first article that I read was « *Si les insectes disparaissent, tout le reste disparaît avec eux* », *entretien avec le spécialiste Dave Goulson*, or in English: “If the insects disappear, all the rest will disappear with them, interview with specialist Dave Goulson,” which was published on February 10 of this year in the French newspaper Le Monde.
- The article is, as the name suggests, an interview with Dave Goulson, who is an ecologist that specializes in pollinators, especially bees, and insect conservation.
- The article talks about how insect biomass has been rapidly decreasing, especially in the last 30 years despite how important insects are to the environment, as a food source for animals and as pollinators for both wild and agricultural plants. And not only are they vital to the environment, but they also make up the large majority of species on the planet, and should be protected.

Slide 3:

- The second article I read was *Comment les abeilles apprennent à danser*, or “how bees learn to dance,” which was published on March 12 in Le Monde.
- This article talked about new research, which found that the dancing of bees, which they use to communicate, is not just an innate skill, but also something passed down through the generations. They found that the dances of young bees on their own were imprecise and they made a lot of mistakes, but when they had the chance to learn the dances from older, more experienced bees, they did a much better job and didn’t make mistakes. So bees have culture just like us!

Slide 4:

- The third article I read was *Les émissions de gaz à effet de serre ont reculé de 2,5 % en France l’an dernier*, or “Greenhouse gas emissions fell by 2.5% in France last year” published April 3 in the newspaper Le Figaro.
- This article talked about how in 2022, greenhouse gas emissions in France fell, which is a big improvement compared to 2021, in which emissions went up due to the Covid

rebound effect. However, the 2.5% drop isn't good enough for France's goal of carbon neutrality by 2050 at the current rate. France has adopted the *stratégie nationale bas carbone*, or national low carbon strategy, so hopefully that will help keep France on track for carbon neutrality by 2050.

Slide 5:

- The final article I read was *Le rôle de mitochondries dans les cancers se précise*, "the role of mitochondria in cancers is becoming clearer," published March 23 in Le Monde.
- This article talks about a study where researchers examined the mitochondria in the lung tumors of lab mice. They found three types of mitochondria, each with different modes of metabolism, as well as differing the behavior in the cells they were found in. These three types of mitochondria were found in different amounts in different types of lung cancer, and the researchers predict that this new knowledge will be useful in anti-cancer therapies that target the food source of cancer cells.

Slide 6:

- This project benefited me on both the French and the biology aspects, which was my goal when I started this project.
- On the French side of things, reading these articles improved my vocabulary, especially on general scientific terms, a lot. I found that many of the specialized scientific words were cognates between French and English, and the less specialized ones I found overlapped between articles, so I was able to apply the vocabulary to multiple of the articles.
- Also, over the course of this project I found that it really helped with both my reading comprehension and reading speed in French. For the articles I read closer to the beginning of the project, it took me a long time to get through them, from looking up a lot of words as well as just struggling with syntax in general. However, for the latter two articles, especially the final one that I read, I found that I was able to get through it a lot faster, as well as understanding a lot of the sentences without having to look up any vocabulary, or only a word or two in a sentence.
- I was also able to apply a lot of the stuff I learned in my French class as the semester went on to the articles I read. For example, when I looked back at my list of vocab words for the first article I read, I found that many of the words in my list were words that I had since learned in class. Also, when I was reading my third article, on greenhouse gas emissions in France, it coincided directly with the unit in class about pollution and the environment, so I was applying vocabulary that I had just learned to read that article.

- On the biology aspect of things, this project gave me a reason to read more scientific news articles. To be honest, despite being a biology major, I don't really keep very up to date on current events in science, so this project actually got me to read a lot more than usual, and in various fields, like ecology, microbiology, and climate change.
- This project has also greatly increased my confidence in reading a scientific news article in French, which is very useful because it opens up an entire new area that was closed to me before. I will now be confident enough to read articles written in French, which can be useful for many things, but especially in fields where France is ahead of America in terms of science.
- I also feel like if I were to study abroad in France I would feel confident enough to actually take a biology related class in the language, with a couple more semesters of French class. When it comes down to it, the biology part wouldn't be the difficult aspect of taking a biology class in French, now that I've seen a bit how it would be.
- The biggest thing that I have taken out of this project, is that as a STEM major, it is very much worth it to understand another language. Understanding another language, even just enough to read some articles in it, opens up an entire new area of research that wasn't accessible before, and can be useful beyond just college.