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TOGETHER NOW FOR THE FUTURE OF OUR PLANET

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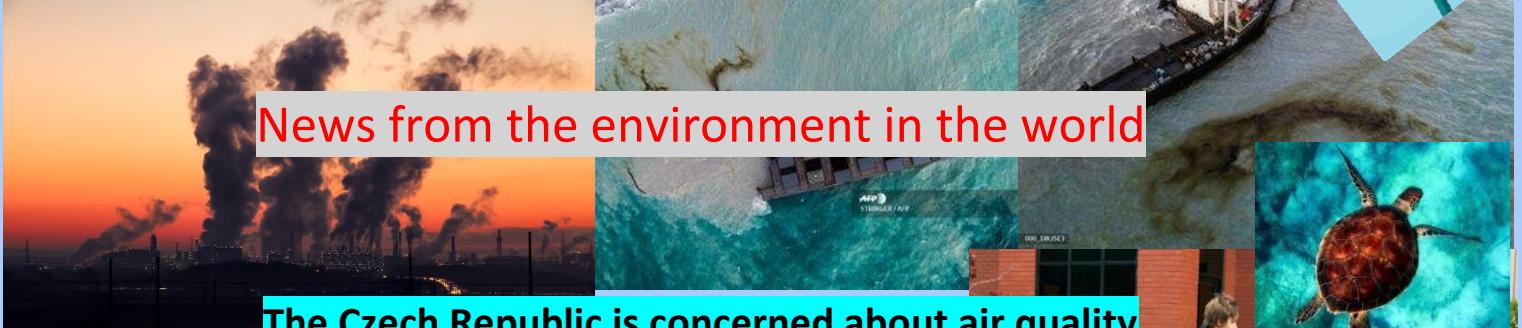
## NEWSLETTER No1 (February 2021)



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#### Historie životního prostředí ČR

Na černobílých obrázcích vidíme jak se životní prostředí začalo měnit. Začínaly se stavět průmyslové závody, které se krajina, záclad se počítat víceméně s využitím kvalitního hliníkového skla. Odpadky bylo minimálně.

Na barevných obrázcích vidíme dnešní životní prostředí. Změně je zaplněna více odpadků. Vyskytuje se sklárny a průmyslové výroby. Na každém rohu jsou popelnice a příplňové koše. Samozřejmě nám zůstala i místka, která jsou krásná a neznečistují odpadky. Ale není to jen krajina a už ani ani město.



2019–20 Australian bushfire season

PROJECT WORK OF 1st YEAR STUDENTS

OUTPUTS FROM ECOLOGY LESSONS



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## How the world ecologically saves the environment

By: Karolína Mejzlíková, Dinh Hoang Thuy Tien (1. MP)

### Solar plastic bottle



The solar bulb is made of a used plastic soda bottle or water bottle that is filled with water and liquid bleach. The bottle is then fixed in a hole in the roof.

The solar bulb emits 55 to 60 watts of bright light and lasts up to 10 months.

This innovative light bulb provides light to low-income **Manila households (Philippines)** - while traditional windows can easily crack or leak during a typhoon season or other inclement weather, a **solar bottle light bulb** provides even more light and helps save money and energy.

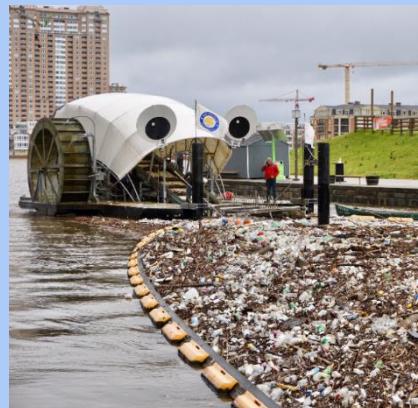
### Mr. Trash Wheel

A vessel that removes garbage from the **Jones Falls** watercourse flowing through the Inner Harbour neighbourhood of **Baltimore, Maryland (USA)**. It is powered by water wheels and solar panels. The waste from the water is transported by an on-board conveyor belt to a container on the ship.



### SpinCycle = Washing machine on a bike

**Richard Hewitt**, a former product design student at **Sheffield Hallam University (England)**, invented **SpinCycle**. His intention was to help people in developing countries.



The device is loaded with clothing, detergent and water and mounted on the back of the tricycle. Then pedal for ten minutes. The next step is to drain and fill with water before pedalling for another ten minutes to complete the wash. The same method can also be used to spin dry clothes once they are clean. **SpinCycle** plans to set up a factory to produce this product in **Africa** and distribute it through a number of charities and NGOs.

**Brands that use recycled plastics** While only a small part of plastic is currently recycled, more and more fashion brands are trying to transform plastic scraps into clothing and accessories.

**The French brand Veja**, already known worldwide for the production of ethical sneakers made from recycled plastic bottles. Each pair of sneakers has three bottles and a fabric that causes breathability and waterproofness.



They are also made from a high proportion of environmentally friendly materials, such as **organic cotton and rubber**, which come directly from farmers, who have a guaranteed minimum of living.



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## INTOXICATION OF THE BEČVA RIVER

By: Herejková, Nagy (1. EP)

On September 20, 2020, there was an extensive death of fish on the river Bečva in an unspecified place between Valašské Meziříčí and Lipník nad Bečvou because of intoxication with an unknown substance, which leaked into the water in large quantities. According to the testimony, according to the smell of water, it was a chlorine-based substance. According to the first analysis of the Czech Environmental Inspectorate (CEI), the leak probably occurred in the Zlín Region, as the toxic substance did not spread further through the river.



In the following days, Deník Referendum informed that on the day of the substance leak, an accident occurred on the premises of the DEZA Company in Valašské Meziříčí, which was to result in a cyanide leak. The press department of the Agrofert concern, to which DEZA belongs, first denied this fact, and then stated that the accident actually occurred on that day, but it was not related to intoxication and subsequent death of fish. The CEI carried out monitoring at fifteen companies in the area, the conclusions of which ruled out that DEZA was responsible for the leak.

Following the publication of these conclusions, the parliamentary opposition called on the Minister of the Environment Richard Brabec (ANO) to resign. The vice-chairman of the STAN movement, Petr Gazdík, stated that Brabec should have carried out and carried out an inspection at DEZA after the accident. The opposition sees DEZA's alleged innocence as the fact that the Agrofert Group is linked by trust funds to the person of Prime Minister Andrej Babiš (ANO) and is of the opinion that the Ministry of the Environment (MoE) has acted biased in this matter. Both the prime minister and the minister denied opposition speculation. Speculation and the alleged alibis of the Ministry of the Environment and the entire government caused outrage on the part of the citizens as well, which in recent days has resulted in demonstrations organized by the Ostrava Green Party club.

The results of testing water samples from 27 October 2020 showed that it contains an increased amount of nickel. They did not confirm that traces of cyanide were found in the water. The CEI further states that nickel is not toxic to humans, but toxicity to aquatic organisms is permissible. However, the CEI investigation, in which the Water Authority, the laboratories in Vsetín and Frenštát pod Radhoštěm as well as the firefighters themselves took part, continues, and we will wait for clear conclusions and identification of the culprit.



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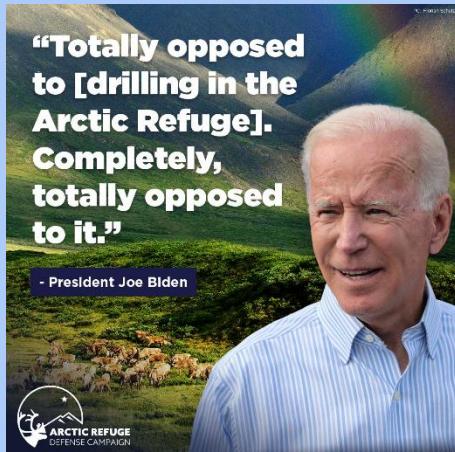


## ARCTIC NATIONAL PARK

By: Bauerová, Horký (1. AD)

For tens of thousands of years, indigenous cultures and several species of wildlife, such as polar bears, muskrats, reindeer, and hundreds of species of birds, have existed in the Arctic sanctuary.

In recent years, the US government has helped protect the region. Following a public campaign led by conservationists President Dwight D. Eisenhower founded the 8.9 million acre Arctic National Wildlife Refuge in 1960. Jimmy Carter, joined the effort in 1980. President Carter protected land, expanded the amount of designated much of the land as a National Wildlife Refuge. and renamed it the Arctic Refuge. Due to political pressure, the 1.5 million acres of Arctic Refuge remained unprotected. This biological heart of wilderness and has been at the centre of a passionate political debate for many years. Proposals to protect the coastal plain as a wilderness have been introduced in every Congress since 1986. Proposals to open the coastal plain for oil and gas production were equally common.



Olaus and Margaret Murie, joined the effort in 1960. Jimmy Carter, joined the effort in 1980. President Carter protected land, expanded the amount of designated much of the land as a National Wildlife Refuge. and renamed it the Arctic Refuge. Due to political pressure, the 1.5 million acres of Arctic Refuge remained unprotected. This biological heart of wilderness and has been at the centre of a passionate political debate for many years. Proposals to protect the coastal plain as a wilderness have been introduced in every Congress since 1986. Proposals to open the coastal plain for oil and gas production were equally common.

**PROTECT  
THE ARCTIC**

As public land, the fate of the Arctic National Wildlife Refuge is in the hands of every American. However, in October 2020, one of the companies of former President Donald Trump decided to open this reservation for oil and gas extraction to the highest supply.

This case was started by a party called Protect the arctic, which began raising money to save the reservation and began collecting signatures on a petition that could prevent the act. In the middle of December 2020, they also succeeded and managed to stop these sales for at least a few months. But immediately after President Biden's inauguration, President Biden issued an executive order on the first day of his presidency to halt oil and gas developments in the reserve. People from all over the world supported NGOs and environmental policy groups, contributed to public commentary and wrote to their representatives to prevent the fossil fuel industry from getting out of the Arctic shelter. However, the fight is not over. We need President Biden's temporary moratorium to be permanent. That is why Protect the arctic asks you not to slow down, to fight for this amazing part of the region, and not to stop your support!





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## News from the environment in the world

By: Patricia Schwarz, Rufus F. Kovtun (1. AD)

Over a thousand tons of fuel leaked from a Japanese tanker off the island of Mauritius. The whole ecosystem is at risk.

[Drone footage shows extent of Mauritius oil spill - YouTube](#)



On July 25 last year, 2020, there was an accident that caused the island of Mauritius in the Indian Ocean to face an ecological catastrophe.

This happened after a Japanese ship crashed on a coral reef, which caused the fuel tank to rupture. Enormous amounts of oil began to leak from the ship. A few days later, Mauritius declared an ecological state of emergency. Prime Minister Pravind Jugnauth declared that he did not have the means to rescue the vessel, so he asked France for help.

Mauritius is famous for its crystal clear sea around the beaches, which until the outbreak of the covid-19 pandemic were an attraction for tourists from all over the world. Its waters contain, among other things, a large number of fish and the country is one of the exporters of tuna fish.

One Greenpeace Africa activist warned that the accident threatened thousands of native species that could "drown in the sea of pollution, with dramatic consequences for the economy, food independence and health of Mauritians." With the help of France and subsequently with the help of Japan, local authorities tried to eliminate oil slicks by helicopter. Volunteers filled large bags with straw, from which they made extensive barriers that prevented the spread of oil.



Man has already been able to create a lot, and at the same time destroy a lot. We should all learn from this global disaster, and international organizations should ensure that ships sailing in international waters comply with all rules and certifications for safe operation and, in the event of a similar accident, bear all the responsibility and costs of removing the damage.



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## The Czech Republic is concerned about air quality

By: Gluschenko, Krajčovič, Havelková (1. AD)

We would like to take you through the issue of air pollution in the Czech Republic. The biggest sources of impurities include thermal power plants and industry, road transport, local coal heating or waste incineration, but the biggest problems are caused by airborne dust, Benzo[*a*]pyren and tropospheric ozone. Such polluted air is the result of forty years of communism in Bohemia, at that time a lot was reported to factory production. The chimneys of smelters and power plants spewed fumes because they had to meet the plans of the five-year plans at 150%. The most affected area in the Czech Republic is the Ostrava region, the Karviná region. The most polluted place in the Czech Republic is Veřňovice, part of the village Dolní Lutyně u Bohumína (3rd most polluted place in the EU). Although the overall air quality in the Czech Republic has significantly improved over the last 20 years, around 60% of the population still lives in areas where the legal limits for air pollution are exceeded. In 2020, 39 smog situations were announced. Around 11,000 people die prematurely every year due to air pollution in the Czech Republic. The largest share of deaths is caused by so-called microscopic dust. Fluctuations in the number of smog situations are given by current meteorological and dispersion conditions. The worst combination is cold winter, hot summer and drought. Due to the fact that the Czech Republic has long exceeded the limit values for the most important pollutants, our country is under increased supervision of the European Commission.

What is the air quality index in Prague? Prague is the capital and largest city in the Czech Republic, which lies on the Vltava River. In 2020, the estimated population in the metropolitan area had over 2.5 million people. In 2019, according to the renowned air monitoring company Awiss, IQAir.com Prague reached a "good" level based on data proposed by the World Health Organization (WHO) with a value of  $11.5 \mu\text{g} / \text{m}^3$ . From May to October, it reached the target value of  $10 \mu\text{g} / \text{m}^3$  or less. March and October yielded a "good" level between  $10$  and  $12 \mu\text{g} / \text{m}^3$ , while the remaining 5 months classified it as "medium" with numbers between  $12.1$  and  $35.4 \mu\text{g} / \text{m}^3$ . Overall, compared to previous years, it improved by  $15.6 \mu\text{g} / \text{m}^3$  in 2017 and  $17.4 \mu\text{g} / \text{m}^3$  in 2018, which are "medium" values.



What are the main sources of air pollution in Prague? In Prague, air quality is one of the biggest environmental problems. The air is polluted mainly by airborne dust (particulate matter PM10, PM2.5), ground level ozone (O<sub>3</sub>), nitrogen oxides (NO<sub>x</sub>), Benzo[a]pyren (C<sub>20</sub>H<sub>12</sub>) and volatile organic compounds (VOC). The city of Prague has seen a large increase in the number of vehicles over the last decade. Exceeding the target permissible concentration in the air occurs in many areas of Prague for the

pollutant Benzo[a]pyren, mostly in the winter, when the combustion of fossil fuels in local heating plants is a significant source of emissions. Emissions of volatile organic compounds (VOCs) into the air are caused by surface consumption of solvents and transport, partly by the automotive industry and printers. Volatile organic compounds (VOCs) together with nitrogen oxides (NO<sub>x</sub>) contribute to the formation of ground-level ozone (O<sub>3</sub>). However, there is one part of the city that is considered a good air area.



Air pollution is a problem facing the whole world. Since the fall of communism, the Czech Republic has begun to solve this problem and has been slowly improving.

## Historie životního prostředí ČR



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**Na černobílých obrázcích vidíme jak se životní prostředí začalo měnit. Začínaly se stavět spalovny, zatěžovala se krajina, začali se používat více plasty. Dříve se využívalo hlavně sklo. Odpadků bylo minimálně.**

**Na barevných obrázcích vidíme dnešní životní prostředí. Země je zaplněna více odpadky. Vyskytují se skládky a spalovny více a více. Na každém rohu jsou popelnice a přeplněné koše. Samozřejmě nám zůstala i místa, která jsou krásná a nezasažena odpadky. Ale není to jako kdysi a už asi ani nebude.**



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## 2019–20 Australian bushfire season

By: Větrovská, Vyšatová, Say, Shumkin, Slavíková (1. EP)

The season of fires in Australia at the turn of 2019 and 2020 affected an area of 186,260 km<sup>2</sup> by January 2020, mainly in the south-eastern part of the country. Over 2,500 buildings were destroyed during the fires, incl. 1,300 residential houses and 33 people died, many others were missing.



The fires appeared as early as the summer of 2019. About three billion animals lost their lives or living space during the Australian fires at the turn of 2019 and 2020. The fires have already hit 14.7 million acres this season. The reasons presented to the media were arson, but in the end, it was allegedly lightning

strikes. Over 2,500 buildings were destroyed during the fires. More than 33 people have died and many more are missing. The fires forced the state government of New South Wales to declare a state of emergency and the Australian military to call in reservists to fight the fire. The fires were preceded by record high temperatures and droughts that hit Australia. Firefighters from the USA, Canada and New Zealand also helped put out the fires. At the turn of December and January 2019 and 2020, the situation with fires forced the deployment of reservists of the Australian army. Smoke from fires has also been registered in Tasmania and New Zealand. It has caused record levels of air pollution in some Australian cities.

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