



NATURE NOTES

Dedicated to the Enjoyment and Conservation of the Natural Beauty of Sun City Texas at Georgetown

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December 2020

The Nature Club will hold Zoom meetings as a result of Covid 19 restrictions. These are informative and fun to attend. Last minute details and reminders are sent via e-mail. Hope to see you in a future meeting.

Scheduled Zoom meetings as of December 1, 2020

Tuesday, Dec 9, 2:30 p.m., "In Search of Whooping Cranes: A Trip to Aransas National Wildlife Refuge" to be presented by Ed Rozenburg.

Tuesday, Dec 22, 2:30 p.m., Living in Alaska, Earthquakes & Volcanoes & More" to be presented by John Jenkinson.

Tuesday, Jan 19, 2:30 p.m., "Native Plants in Sun City" to be presented by Larry Fowler.

Past Zoom meetings are available online at [this link](#).

****Watch you e-mail for Zoom Invitations and reminders.****

MEMBERSHIP DUES: \$8 for 2021

Dues include our monthly programs and all Special Interest Group programs and activities.

SPECIAL INTEREST GROUPS (SIGs)

Nature Club activities are posted on the Nature Club website calendar. E-mails are sent to Club members only.



AMPHIBIANS, REPTILES & MAMMALS

Watch for emails concerning future meetings

SIG Chair: Steve Kelly

REPTILE ID, RELOCATION & MAPPING

FREE service, call:

- Steve Kelley 512-639-0539
- Jim Christiansen 512-868-3504
- John Leek 713-825-0145
- Joe Plunkett 774-226-0810
- City of Georgetown Animal Control 512-930-3592



We encourage residents to leave harmless, beneficial reptiles in their landscapes, but call us so we can identify and map all reptiles.

ASTRONOMY SIG

Watch for Special Viewing announcements.



No meetings are currently scheduled. Watch for emails about the resumption of activities
SIG Chairs: Richard Wagoner & David Lingo

BIRDING SIG

No meetings are currently scheduled. Watch for emails about the resumption of activities.



BIRD WALKS

No walks are currently scheduled. Watch for emails about the resumption of activities.
SIG Chairs: Ed Rozenburg & Martin Byhower



BUTTERFLY/MOTH SIG

No meetings are currently scheduled. Watch for emails about the resumption of activities.

BUTTERFLY WALKS

No walks are currently scheduled. Watch for emails about the resumption of activities
SIG Chair: Ed Rozenburg

ENVIRONMENTAL SIG

No meetings are currently scheduled. Watch for emails about the resumption of activities
SIG Chair: Pamela Tanner



GEOLOGY SIG

No meetings are currently scheduled. Watch for emails about the resumption of activities
SIG Chair: Paul Swetland



NATIVE PLANTS SIG

No meetings are currently scheduled. Watch for emails about the resumption of activities
SIG Chair: Larry Fowler



What is Green Energy?

In the past three decades, research and development in green energy has exploded, yielding hundreds of promising new technologies that can reduce our dependence on coal, oil, and natural gas. But what is green energy, and what makes it a better option than fossil fuels?

Green energy comes from natural sources such as sunlight, wind, rain, tides, plants, algae and geothermal heat. These energy resources are renewable, meaning they're naturally replenished. In contrast, fossil fuels are a finite resource that take millions of years to develop and will continue to diminish with use.

Renewable energy sources also have a much smaller impact on the environment than fossil fuels, which produce pollutants such as greenhouse gases as a by-product, contributing to climate change. Gaining access to fossil fuels typically requires either mining or drilling deep into the earth, often in ecologically sensitive locations.

Green energy, however, utilizes energy sources that are readily available all over the world, including in rural and remote areas that don't otherwise have access to electricity. Advances in renewable energy technologies have lowered the cost of solar panels, wind turbines and other sources of green energy, placing the ability to produce electricity in the hands of the people rather than those of oil, gas, coal and utility companies.

Green energy can replace fossil fuels in all major areas of use including electricity, water and space heating and fuel for motor vehicles.

Types of green energy

Research into renewable, non-polluting energy sources is advancing at such a fast pace, it's hard to keep track of the many types of green energy that are now in development. Here are six of the most common types of green energy:

Solar power - The most prevalent type of renewable energy, solar power is typically produced using photovoltaic cells, which capture sunlight and turn it into electricity. Solar energy is also used to heat buildings and water, provide natural lighting and cook food. Solar technologies have become inexpensive enough to power everything from small hand-held gadgets to entire neighborhoods.

Wind power - Air flow on the earth's surface can be used to push turbines, with stronger winds producing more energy. High-altitude sites and areas just offshore tend to provide the best conditions for capturing the strongest winds. According to a study published in the Proceedings of the National Academy of Sciences, a network of land-based, 2.5-megawatt wind turbines in rural areas operating at just 20% of their rated capacity could supply 40 times the current worldwide consumption of energy.

Hydropower - Also called hydroelectric power, hydropower is generated by the Earth's water cycle, including evaporation, rainfall, tides and the force of water running through a dam. Hydropower depends on high precipitation levels to produce significant amounts of energy.

Geothermal energy - Just under the earth's crust are massive amounts of thermal energy, which originates from both the original formation of the planet and the radioactive decay of minerals. Geothermal energy in the form of hot springs has been used by humans for millennia for bathing, and now it's being used to generate electricity. In North America alone, there's enough energy stored underground to produce 10 times as much electricity as coal currently does.

Biomass - Recently-living natural materials like wood waste, sawdust and combustible agricultural wastes can be converted into energy with far fewer greenhouse gas emissions than petroleum-based fuel sources. That's because these materials, known as biomass, contain stored energy from the sun.

Biofuels - Rather than burning biomass to produce energy, sometimes these renewable organic materials are transformed into fuel. Notable examples include ethanol and biodiesel. Biofuels provided 2.7 percent of the world's fuels for road transport in 2010, and have the potential to meet more than 25 percent of world demand for transportation fuels by 2050.

By S.A. Rogers - Treehugger.com, Updated October 29, 2020