About the initiative

The New Forest - the IFS training campus - an area which houses the FRI and its sister institutions including the Indira Gandhi National Forest Academy (IGNFA) is also home to a rich biodiversity. These flora and fauna become a part of our neighbourhood while we are at the campus. The campus is also adorned with heritage buildings, museums, nurseries and a beautiful landscape. This initiative is aimed at making us more familiar with our neighbourhood.

The KYC (Know your Campus) initiative started by the IFS 2019 batch in this lockdown period shall come out with a campus related topic each day.
Butterflies are a large group of insects, belonging to the order “Lepidoptera”, which means “scaly wing”. They are characterized by their large, often brightly coloured wings, club shaped antenna and by their proboscis, which they use to suck flower nectar. They have a conspicuous flight.

There are approximately 17000-19000 species of butterflies in the world.

In India 1318 species are found. Roughly 340 species occur on the peninsula, with most concentrated in the evergreen forests of the Western Ghats. The Gangetic plains has less than 100 species. Uttarakhand has around 450 species and North East India has well over 1000 species.

**Life Cycle of a butterfly**
Eggs
1. Eggs vary in shape, colour, size according to species.
2. Generally laid on leaves of the host plant of that species.

Caterpillar
1. Caterpillars consume plant leaves of the host plant and practically spend their entire time searching and eating food.
2. Powerful mouth parts that facilitate the same.
3. Grows at a remarkable rate converting a large part of food eaten into fatty tissue (reserve food material).
4. As its body enlarges, it undergoes multiple rounds of moulting where outer skin is shed and new skin is formed.
5. This stage lasts for 2-8 weeks depending on species and availability of food.

Pupa
1. On reaching a level of satiation, the caterpillar grows sluggish and pupates on an underside of leaf or a twig.
2. Attaches itself and wraps a neat silken girdle around the support and its body.
3. Once attached, it sheds the final larval skin revealing a completely different form.
4. The pupation stage can last between 2 weeks to several months (in case it is winters).
5. Within the wall of pupa, lots of physiological and developmental activities goes on that results in dissolution of several vital organs of the caterpillar and rearrangement of cells into a beautiful insect that can fly.

Butterfly
1. When the right conditions arrive, the formed butterfly inside splits the pupal case, crawls out and proceeds to expand its wings.
2. The wings expand as blood is pumped into them just like how inflatable toys assume their shape when pumped up.
3. After drying their wings for a while butterflies begin their flight in order to serve their two purposes – reproduction and dispersal of species.
4. Since flying is an energy expensive process butterflies also supplement their body-fat fuel held over from the caterpillar stage with energy rich nectar from flowers.
**Orange Oakleaf**
*Kallima inachus*
- **Family:** Nymphalidae
- **Wingspan:** 85 - 110 mm
- **Distribution:** Himalayan foothills, Northeast India, Hills of peninsular India

*A large butterfly mimicking a dried leaf for camouflage.*

*Photo by Abhimanyu, IFS 2019 taken in Old Hostel*

**Blue Pansy**
*Junonia orithya*
- **Family:** Nymphalidae
- **Wingspan:** 40-60 mm
- **Habitat:** loves dry river beds and stony paths

*Photo by Anand, IFS 2018*

**Common Mormon**
*Papilio polites*
- **Family:** Papilionidae
- **Wingspan:** 90- 100 mm
- **Habitat:** loves curry leaf plant, oranges and lemon plants

*A common butterfly near human inhabitations*

*Photo by Anand, IFS 2018*
Chocolate Soldier
Junonia iphita
Family: Nymphalidae
Wingspan: 55-80 mm
Habitat: mostly in damp areas and shady places of Himalaya, south and central India
It's also known as Chocolate Pansy
Photo by Anand, IFS 2018 taken near New Hostel

Striped Tiger
Danaus genutia
Family: Nymphalidae
Wingspan: 75-95 mm
Habitat: in rainfall abundant places, forest edges or scrublands
Ever imagined tigers roaming freely in our hostel? But yes these do!
Photo by Kasturi, IFS 2019

Ecological importance -
Butterflies visit several flowers to meet their nectar demands. Thus, acting as a major pollination agent in the ecosystem. Butterflies are prey species for several invertebrates, birds etc. Hence healthy populations of butterflies sustain higher tropic levels of the food chain thus indirectly sustaining the diversity of other organisms.

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