1.3.3/22-23

GOVERNMENT COLLEGE FOR WOMEN NARNAUL

P

Session: 2022-2023

Topic : Economic importance of bryophytes and pteridophytes

Submitted by : SANGEETA Class :

B.Sc I Medical (semester II)

Rollno – 1220831030049

Submitted to- Mrs. Sadhana Rao

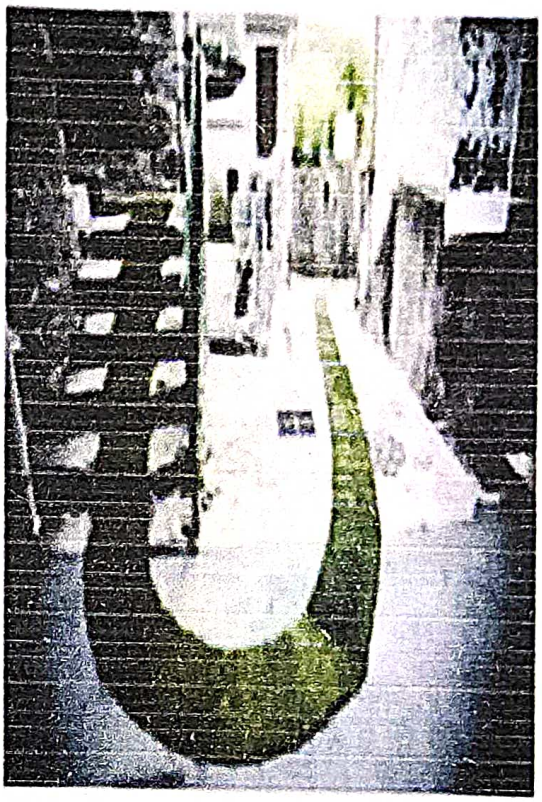
Department of Botany

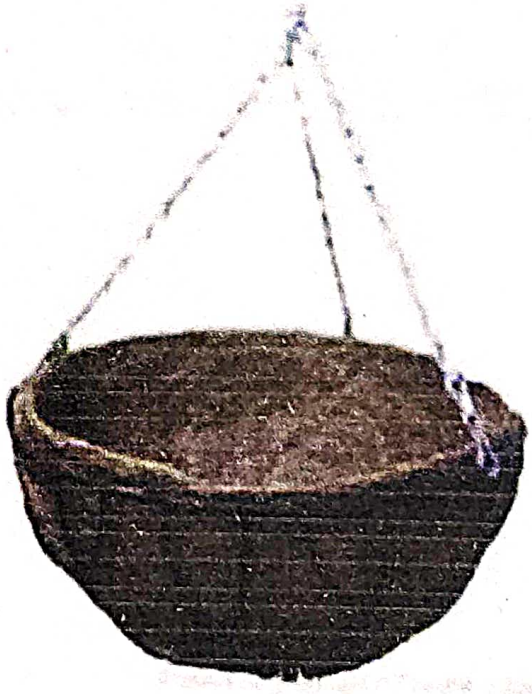
Economic importance of Bryohytes

- In Moss industry
- As ornamental purpose
- As household uses
- In fibre industries
- In Medicine
- As a Fuel

Moss industry

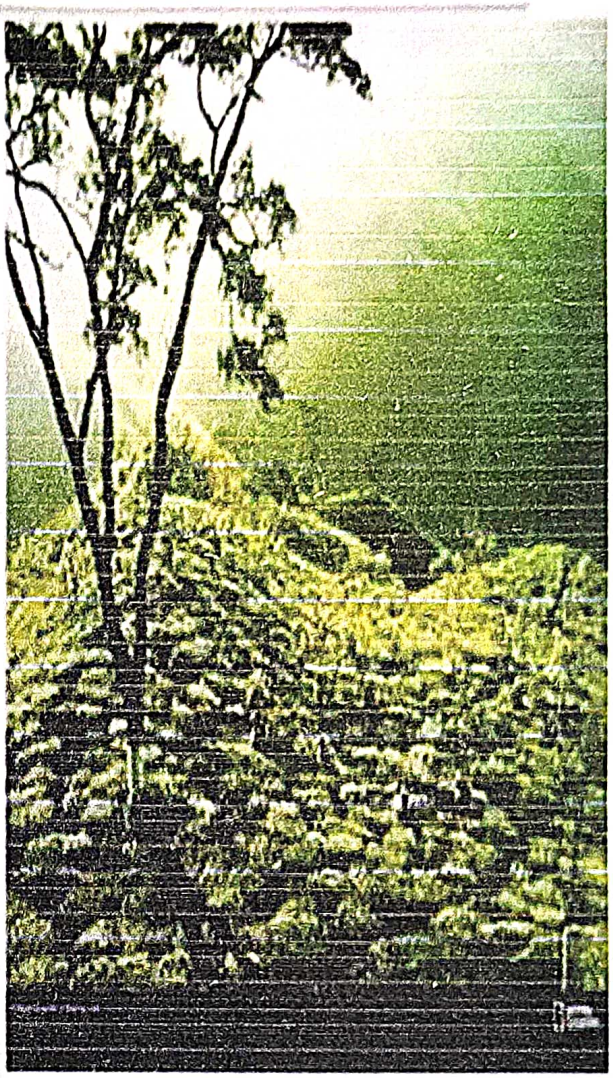
- Moss industries in France manufacture moss carpets in various sizes.
- They are easy to fix along the
- roads, lawns, play grounds, etc.
- In Sri Lanka,a wide range of eco-friendly products such as coir pots, coir fiber pith (coco - peat), moss sticks, hanging wire baskets and basket liners are made using bryophytes.

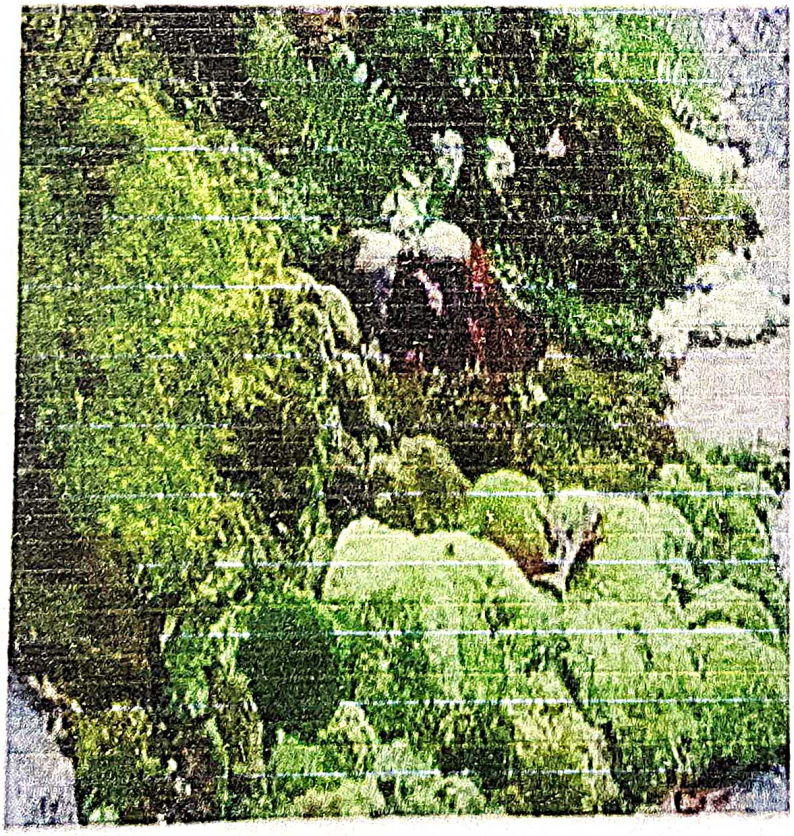




Bryophytes as ornamental plant

- Bryophytes have also been used for green house crops, potted ornamental plants and seedlings, and in garden soil.





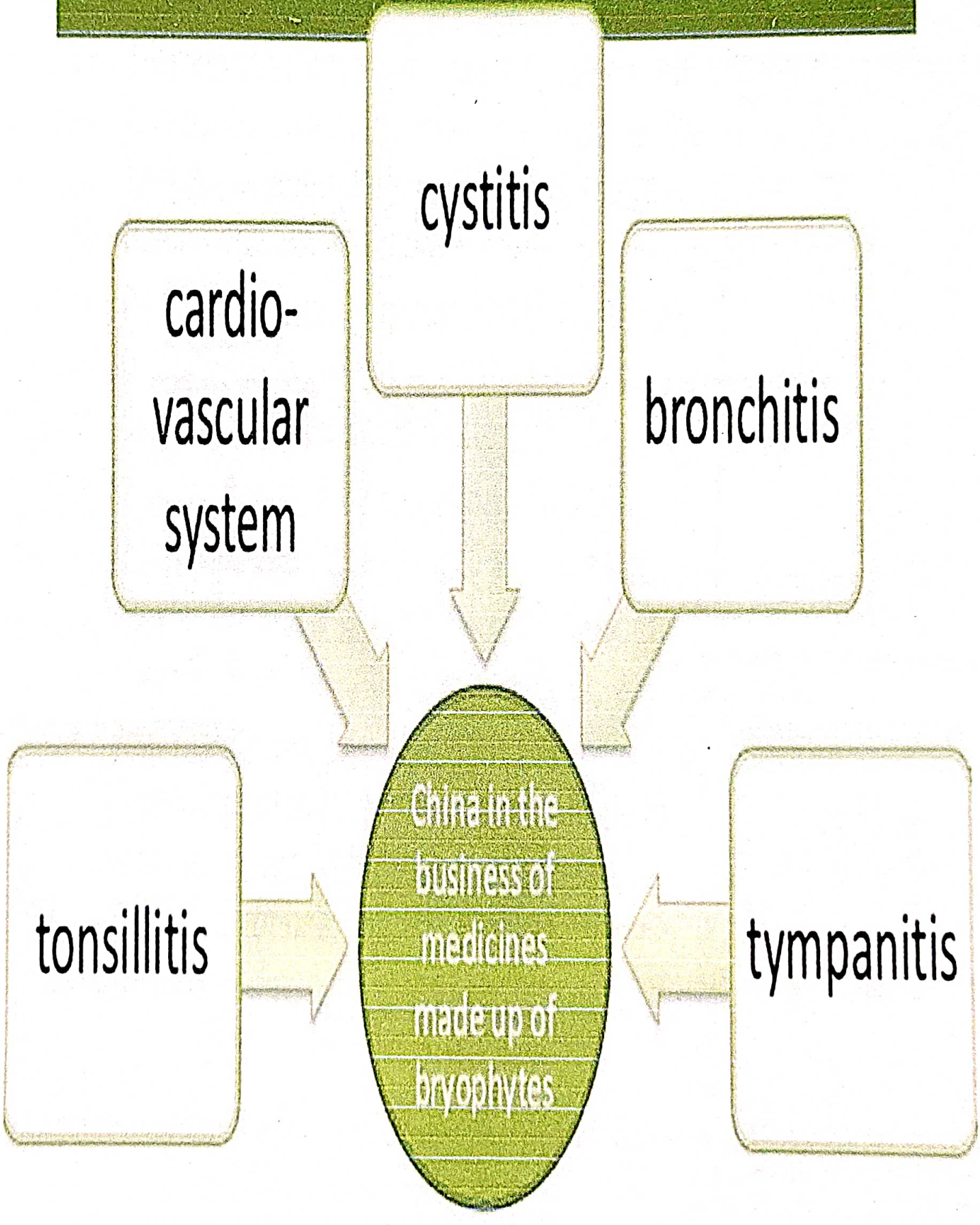
Household Uses

- The Himalayans also use mosses as insect repellents when storing food.
- Local mosses and liverworts are dried, made into a coarse powder that is sprinkled over grains and other goods to be stored in containers.

Fibre industries

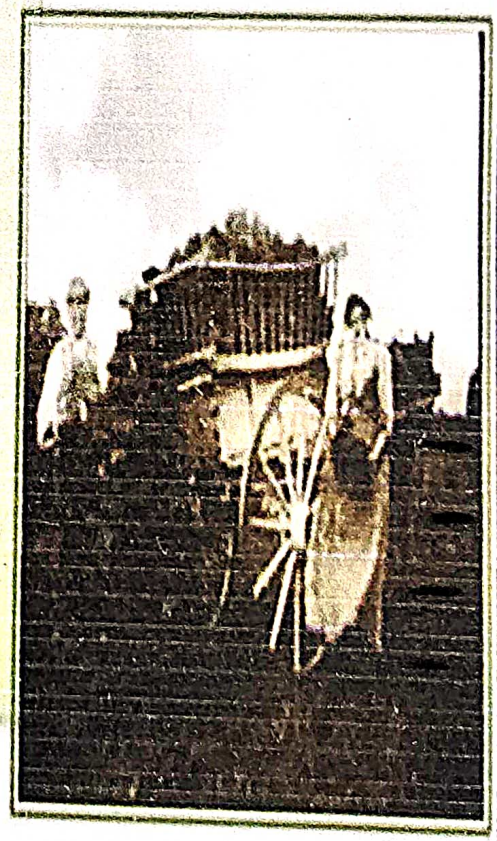
- Mosses are mixed with wool to make cheap clothes.
- They are used in decoration of net bags and other objects.
- Women also wear their steam like structure in their hair and as decorations in bracelets .
- Used in hiking boats to absorb odour and moisture.
- Used in lining of diapers to improve absorbing power.

Medicines


cystitis
cardio-vascular system
bronchitis
China in the business of medicines made up of bryophytes
tonsillitis
tympanitis

Bryophytes as Fuel

- Liverworts and mosses have long been tried and used as a fuel in developed countries like Finland, Sweden, Ireland, West Ger-many, Poland and Soviet Union.
- Peat a brown, soil-like material characteristic of boggy, acid ground, consisting of partly decomposed vegetable matter.
- Peat is suitable for production of low and intermediate BTU gas as well as hydrogen, ethylene, natural gas, methanol and Fisher Tropsch gasoline.
- Peat mosses are best suited for the production of methane, and peat is likely to become an important source of fuel for production of heat,methane, or electricity in the future.

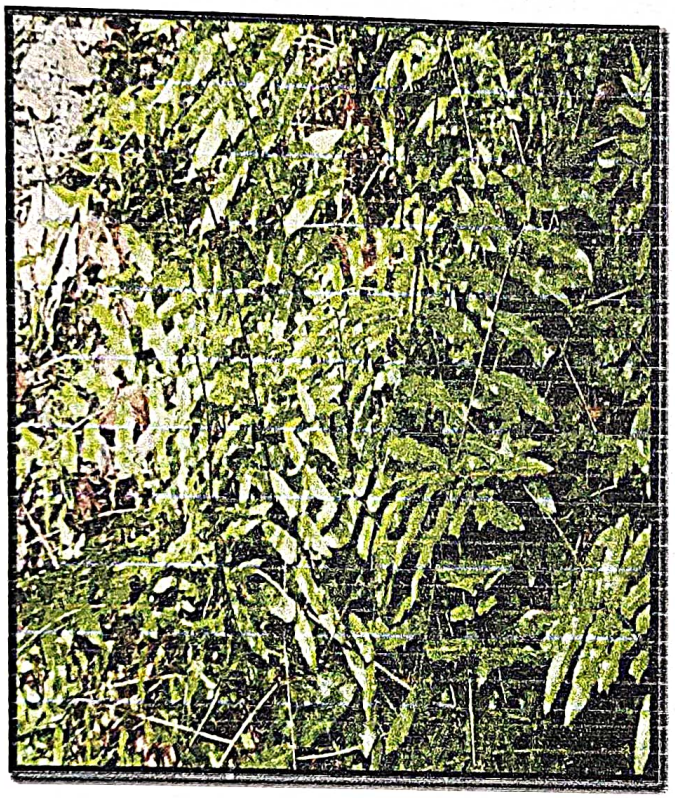


Economic importance of pteridophytes

- *Used as a food*
- *Used as a medicine*
- *In landscape and floral industry*
- *As a fertilizers*
- *Used as a horticulture*

Pteridophytes Used as Food:

The young leaf tips of ferns, the circinate ptyxis or the chroziers are used as
vegetable. The young fronds of *Ampelopteris prolifera* are sold in the market as
'dheki shaak' in India and Bangladesh. The croziers of *Matteuccia struthiopters*
as canned or frozen are served as spring vegetable in USA and Canada. Leaves of
Marsilea, commonly called 'shushni', are used as vegetable.



Pteridophytes Used as Medicine:

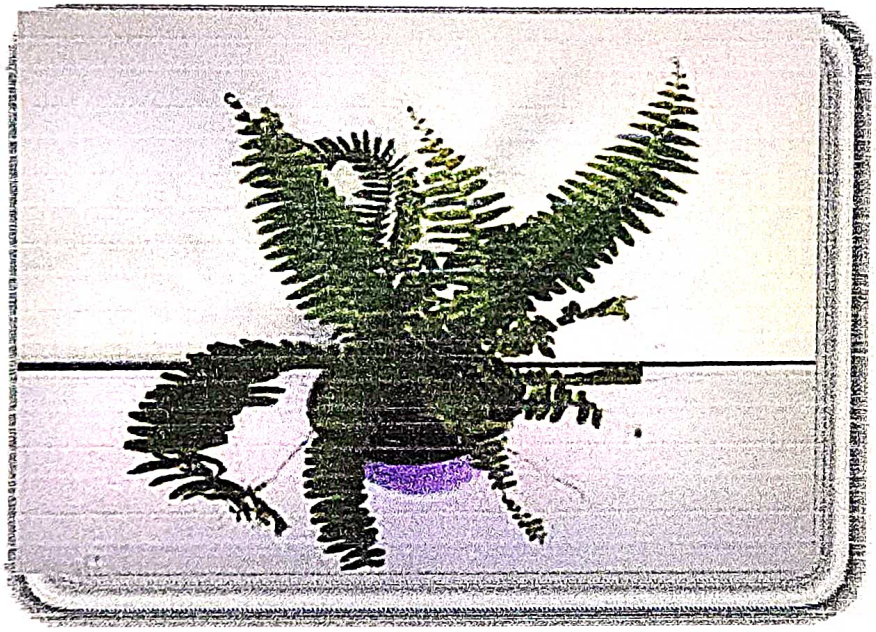
The spores of *Lycopodium* have been widely used in pharmacy as protective
dusting powder for tender skin and also as water-repellants. The foliages of
Lycopodium are used as tincture, powder, ointment and cream as a stomachic
and diuretic. The foliage decoction is used in homeopathy to treat diarrhoea,
bladder irritability, eczema, rheumatism, constipation and inflammation of liver.

Several ferns have been used as herbal medicine. An oil (5% Filmaron and 5-8%
Filicic acid) extracted from the rhizome of Aspidium is used as a vermifuge,
especially against tapeworm. silicates. Potassium, aluminium and
manganese, along with fifteen types of flavonoid compounds, have been reported
from Equisetum. The flavonoids and saponins are assumed to cause the diuretic

Landscape and Floral Industry –

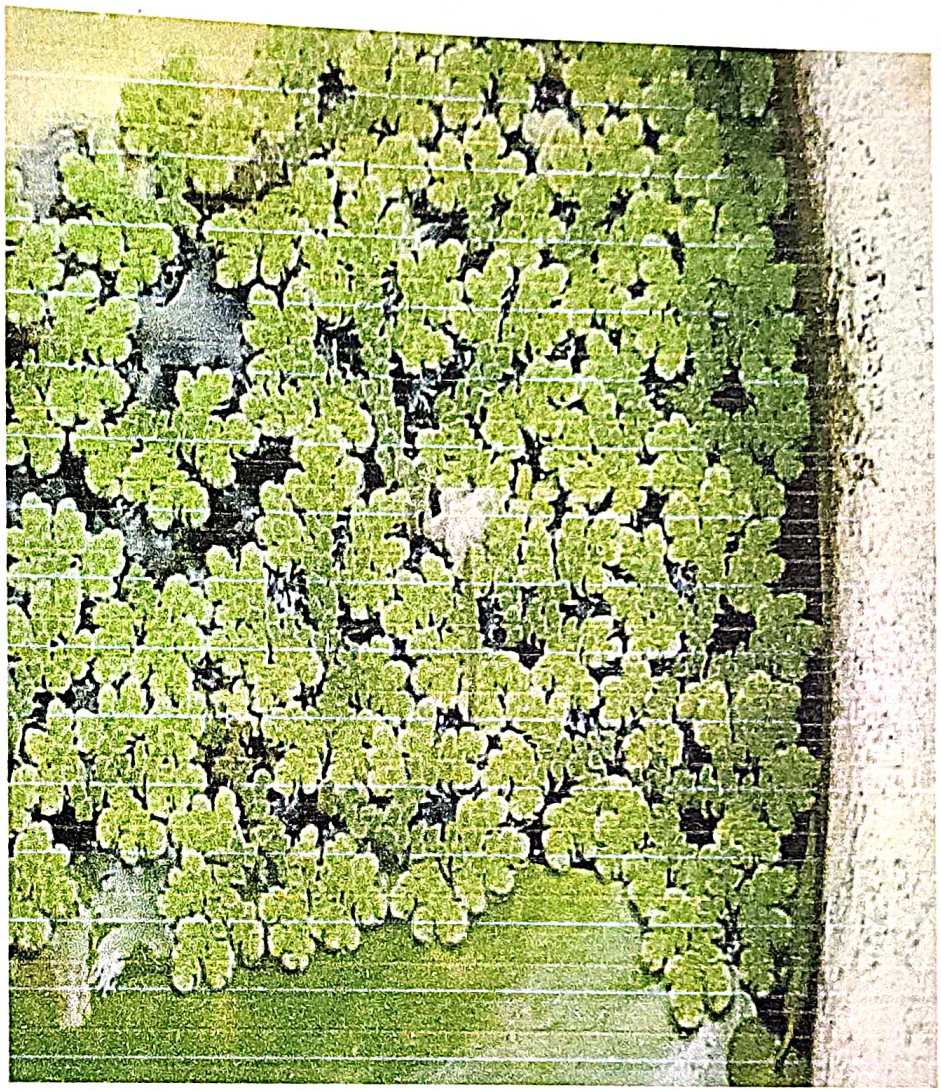
ferns are great landscape plants, and are used for their attractive lacy foliage. In the

floral industry, ferns are used for both houseplants and greenery for floral
arrangements. Some of the most popular ferns for these purposes are sword ferns
(Nephrolepis exaltata), birdsnest fern (Asplenium nidus, one of the rare ferns with
solid leaves) and floral fern (Rumohra adiantoides).



Fertilizers

The mosquito fern (Azolla pinnata) is barely recognizable as a fern. It is small and aquatic, floating on ponds and still waters. It has the ability to fix nitrogen and make it available to other plants, and this ability has led to its extensive use with water crops such as rice. Azolla pinnata has a symbiotic association with nitrogen-fixing, bluegreen algae namely – Anabaena azollae Strasburger. Due to this property, the agronomic potential of Azolla as biofertilizer for rice has been recognized in many countries including India, Philippines, USA, Sri Lanka and Thailand. It has been also found that by applying Azolla the soil fertility is improved by increasing total nitrogen, available organic carbon, phosphorous and potassium. Azolla has also been used as food supplement in fresh or dried or silage form for a variety of animals.



. Pteridophytes Used as Horticultural Plants:

Table 2.4: Economic importance of Pteridophyte

Pteridophyte	Uses
Rumohra adiantiformis (leather leaf fern)	Cut flower arrangements.
Marsilea	Food
Azolla	Biofertilizer.
Dryopteris filix-mas	Treatment for tapeworm.
Pteris vittata	Removal of heavy metals from soils - Bioremediation
Pteridium sp.	Leaves yield green dye.
Equisetum sp.	Stems for scouring.
Psilotum, Lycopodium, Selaginella, Angiopteris, Marattia	Ornamental plants

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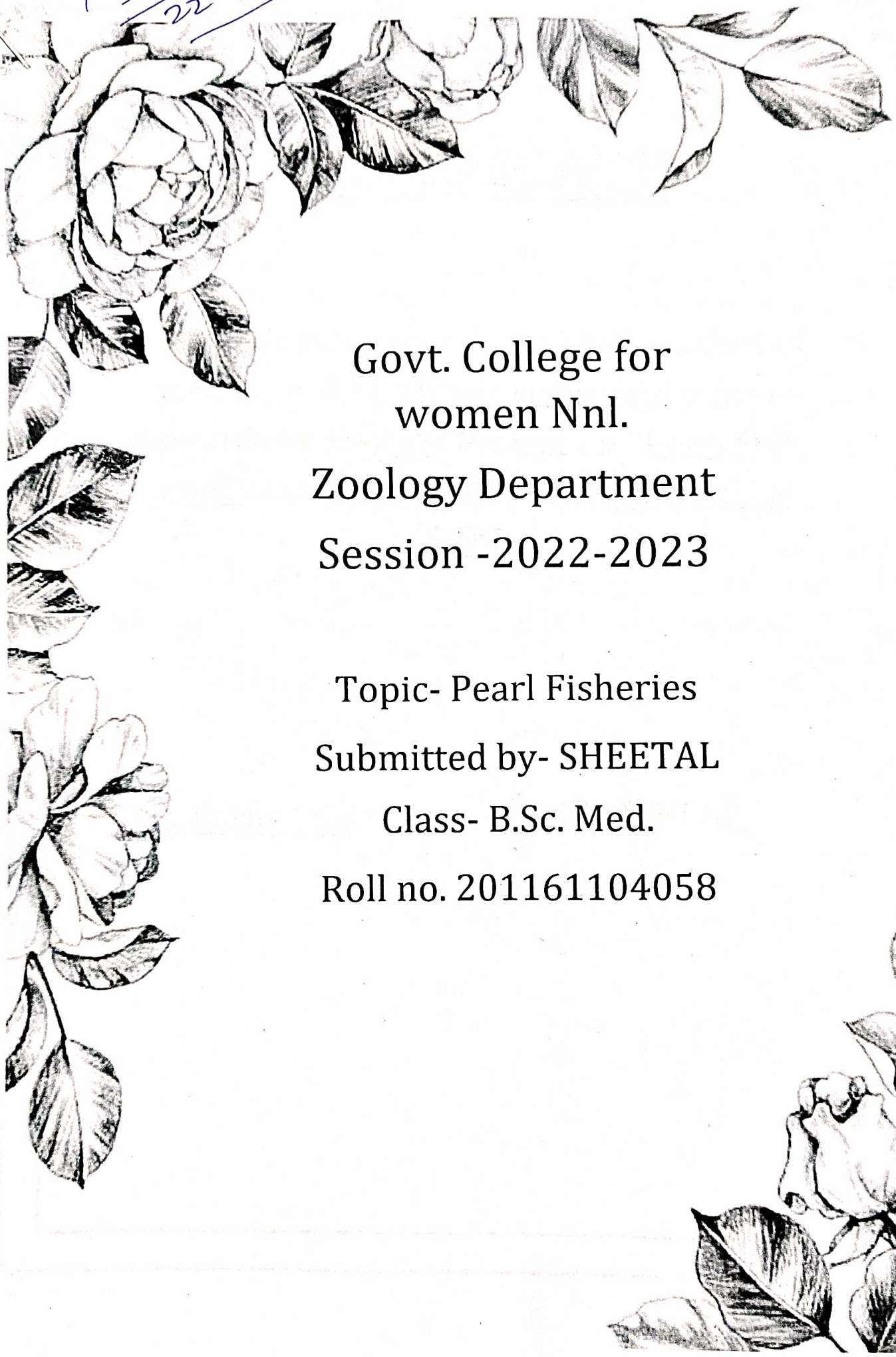

Govt. College for
women Nnl.

Zoology Department

Session -2022-2023

Topic- Pearl Fisheries

Submitted by- SHEETAL

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CERTIFICATE

This is to certify that "SHEETAL" student of class-B.Sc. 3rd year has successfully completed their Zoology Project on "Pearl Fisheries" under the guidance of Mrs. Rekha Saini.

Mrs. Rekha Saini

SHEETAL

ACKNOWLEDGEMENT

*I would like to express my special thanks of gratitude to my teacher **Mrs Rekha** who gave me the golden opportunity to do this wonderful project of **Pearl Fisheries.***

Who also helped me in completing my project. I came to know about so many new things I am really thankful to them.

Secondly I would also like to thank my parents add friends who helped me a lot in finalizing this project within the limited time frame.

SHEETAL

B.Sc.3rd year

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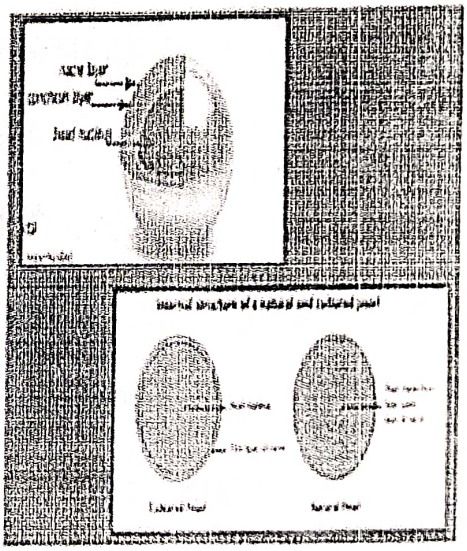
History

The idea of Pearl Industry was evoked in Japan. The initial success was achieved in 1893 by Kokichi Mikimoto, who is considered as the 'Pearl King' and the Father of Pearl Culture industry.

In India the technological breakthrough in pearl culture was achieved in 1973 by the Central Marine Fisheries Research Institute (CMFRI). A second, equally significant, breakthrough was achieved in 1981, through the development of controlled production of pearl oysters in hatchery.

Pearl

- Pearl is a white, highly shining globular concretion found within the shell of an Oyster.
- Best quality of pearls called as "Lingha Pearl".
- Pearl comprises of water, organic matter, calcium carbonate and the residue.



(1) Water: 2-4%

(2) Organic matter:3.5-5.9%

(3) Calcium carbonate: 90%

(4) Residue: 0.1-0.8%

Types of Pearls

(1) **Lingha pearl :** Best quality pearl obtained from marine oysters.

(2) **Seed pearls :** Small pearls are called seed pearls.

(3) **Baroque pearls :** Spherical pearls formed inside the body.

(4) **Blister pearls :** Pearls attached to the shell and half-spherical in shape.

(5) **Oriental pearls :** True pearls (great lustre, beauty and smooth surface).

(6) **Natural pearls :** Pearls obtained from pearl oysters of deep oceans.

(7) **Cultured pearls :** Pearls obtained from cultivated species of pearl oysters.

Pearl Producing Sites in India

Pearl oyster beds in India are present on both eastern and western coasts. However, the east coast is more productive and extensive than the west coast as it extends from Cape Comorin to Kilakarai. Tuticorin is the most productive region of the east coast lies in the Gulf of Kutch. Hence the major sites of pearl fisheries in India are Gulf of Manaar both on Indian as well as Ceylonese sides, Gulf of Kutch, Palk Bay, Baroda and Tuticorin.

These pearl beds on the ridges of rocks and dead corals, forming extensive pearl banks or at the depth of 18 – 22 metres at a distance from the shore produce best quality of pearls called as 'Lingha Pearl'.

Pearl Formation

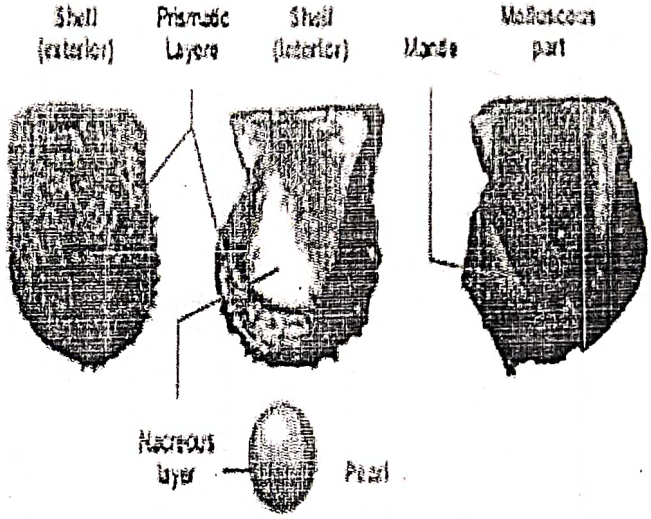
Steps of Pearl Formation:

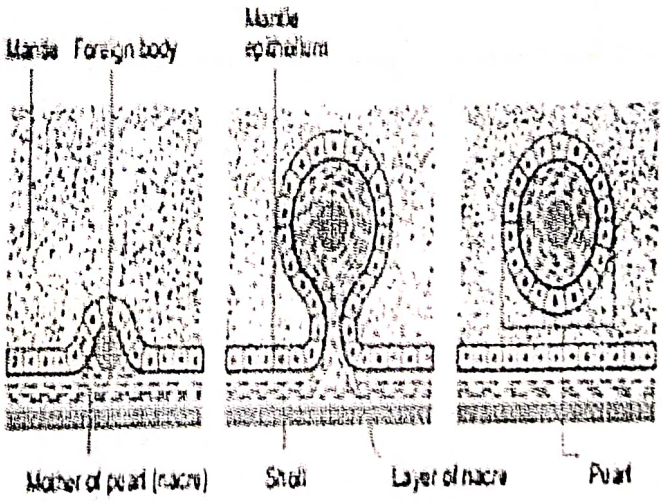
1.Foreign particle accidentlly enters into the space between mantle and shell of the oyster, it adheres to the mantle.

2. Mantle epithelium encloses it like a sac and starts to secrete concentric layers of nacre around it as a defensive mechanism.

3. Nacre is secreted continuously by the epithelial layer of the mantle and is deposited around the foreign particle and over a period time the formation of repeated layers of calcium carbonate makes the hard and glossy pearl.

4. Pearl enlarges the oyster dies. The shell is then carefully opened and the pearls are manually separated and graded.





SOCIO-ECONOMIC SURVEY

ON

GRASIA TRIBE OF SURAN VILLAGE

UDAIPUR (RAJASTHAN)

Report

SUBMITTED TO THE INDERA GANDHI UNIVERSITY

MEERPUR FOR THE MASTER DEGREE

IN GEOGRPAHY

2022-23

Supervision

Dr. Yashpal

Associate Professor

Submitted By:-

Name – Priyanka Yadav

Roll No – 211160901014

DEPARTMENT OF GEOGRAPHY

GOVT. COLLEGE FOR WOMEN, NARNAUL

PROJECT REPORT OF TOURISM

ON

MANALI(HIMACHAL PARDESH)

Submitted To the I.G. UNIVERSITY

For the MASTER DEGREE

(SESSION 2022-2023)

Supervisor: Dr. Yashpal
ASSOCIATE PROFESSIOR

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