



Knowledge Generation and Management

Generation of knowledge and information are the natural output of research. Technology is the manifestation of knowledge and information. The management of knowledge is carried out by establishing libraries and databases and providing their access to the clientele

Establishment of National Insect Museum

- A new double storey building was constructed for establishment of National Insect Museum at NARC through ASPL-II funding. The ground portion includes offices for officers/staff, committee room and four laboratories. The museum is located on upper portion consisting of five sub portion. A big display is also situated on this floor. The building has been occupied and functioning. At present there are 120 millions identified specimens in the museum.



Newly constructed building of "National Insect Museum" at NARC

Transfer of historical Pusa Collection

- The historical Pusa collection of insects of Biosciences in the Sub-Continent (Pakistan share) inherited at the time of partition was shifted from CABI, Rawalpindi to this museum. This collection consists of 39 cabinets containing identified specimens in well catalogue form.

Online data

- On line data for "**Nymphalid Butterflies of Pakistan**" is developed with 614 voucher specimens with 69 species were identified with nine new records for Pakistan. Voucher specimens can be accessed at the following web site.

http://www.nymphalidae.net/pk_db



Argynnis clara Blan.
(New record from Pakistan)

Barcode of Life Data System

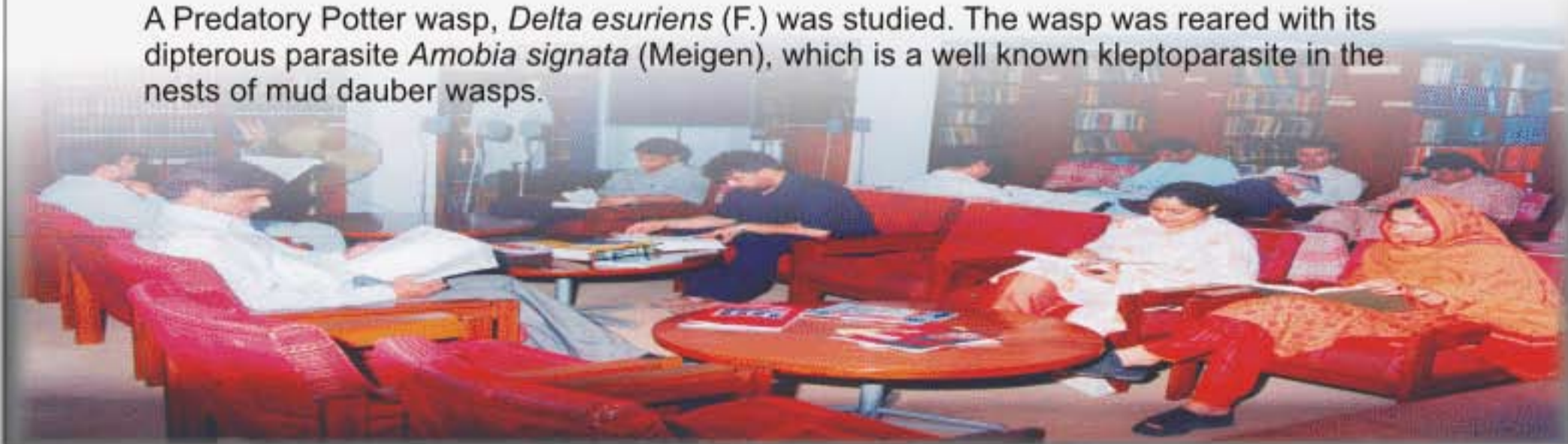
- Advancing species identification and discovery through the analysis of short, standardizes gene region. Four species of Geometrid moths (i.e. *Ascotis selenaria*, *Alcis depravata*, *Alcis* sp. and *Biston suppressaria*.) are linked with International project entitled "Canadian DNA barcoding Programme" and can be accessed on following sites:

<http://www.barcodinglife.com/views/taxbrowser.php?taxid=90790>

<http://www.barcodinglife.com/views/taxbrowser.php?taxid=7734>

<http://www.barcodinglife.com/views/taxbrowser.php?taxid=92155>

A Predatory Potter wasp, *Delta esuriens* (F.) was studied. The wasp was reared with its dipterous parasite *Amobia signata* (Meigen), which is a well known kleptoparasite in the nests of mud dauber wasps.





Kleptoparasitism
(Dipterous Maggots Parasites)



Delta esuriens (F.)
(Adult Potter Wasp)



Amobia signata (Meigen)
(Adult Dipterous Fly)

Insect Identified and added to the museum

- Order Coleoptera (Identified species, 36; New Record for Pakistan, 08); Order Diptera (Identified species, 02); Order Lepidoptera (Identified species, 134; New Record for Pakistan, 14); Odonata: Zygoptera (Identified species 46; New Record for Pakistan, 04); Order Heteroptera (Identified species, 15); Order Hymenoptera (Identified species, 21).

Knowledge Sharing

PARC Website (www.parc.gov.pk)

On line Scientific Reference data

Pakistan Journal of Agricultural Research

PARC Newsletter

PARC Helpline 080055056

Progress reports of each PARC Programme

Reference Labs at NARC and SARC, Karachi

