

Insect Museum: A hub for insect classification and biodiversity preservation

Iranica Desk

The Insect Museum, located in district 1 of Tehran, is affiliated with the Agricultural Research, Education, and Promotion Institute of the Ministry of Agriculture. It proudly showcases a collection of 4.5 million identified and unidentified insect specimens, encompassing a staggering 25,000 varieties.

At the Iranian Research Institute of Plant Protection, there are two departments dedicated to the study of insects. In the Agricultural Entomology Department, research focuses on the biological taxonomy of these organisms to control various pests. However, the second one named "Insect Classification Department" is engaged in the identification of different insect species and their classification.

Shahab Manzari, the head of the Insect Classification Department, declared that this department is the sole authoritative source for identifying insects in the country. He stressed that precise insect identification and dedicated research play a significant role in helping related authorities effectively control pests, Mehr news agency reported.

He added that preserving biodiversity is one of the important goals to which countries commit, based on an international treaty. Don't forget, insects and pests are beneficial for the survival and health of the environment.

He noted that so far, 300 species of insects have been identified in Iran, and the recognition of 1.5 million butterfly specimens has resulted in the discovery of 1,000 species of these insects.

According to available documents, the collection and identification of insects in Iran started in the late 18th and early 19th centuries by Russian and European entomologists.

The specimens collected and identified by these entomologists are still present in some foreign museums, particularly in St. Petersburg, Paris, and London.



In 1919, teaching and research in the field of entomology and zoology began in Iran. In 1923, the first unit called "The Local Pest Diagnosis and Control

Department" was established, marking the official start of research and practical work in the discovery and collection of insects by Iranians themselves.

During the next decades, thanks to the extensive efforts taken by local entomologists for collecting, studying, and identifying Iran's insect population, an

impressive museum was established in the country.

With the official inauguration of the Plant Pests and Diseases Research Institute in 1963, the Insects Classification Department was established as one of the crucial divisions of the institute.

A new generation of graduates in the field of pest control (entomology) from the Faculty of Agriculture in Karaj joined the institute in 1964. With the arrival of these young talents who were eager and ambitious, the collection and identification of insects in Iran experienced an unprecedented leap. Long scientific expeditions were carried out by them with the aim of collecting insects from various parts of the country.

A few years later, some foreign entomologists joined this department intermittently, and some collaborated with this department by undertaking travels. The result of all these activities was the expansion of the department, the establishment of a museum, and its recognition abroad as the "Evin Insect Museum" or Plant Pests and Diseases Research Institute (PPDRI).

In the 1970s, the large building of the museum was completed on a 15-hectare site of the institution, and several departments, including the insect classification department, the botany department, and the agricultural zoology department, were transferred to it. The second floor of the building was assigned to the insect museum and the workplace of the staff.

In the span of the next two decades, a formidable surge of young and energetic talents flocked to this department, propelling its advancements. The collection of insect specimens in the museum has experienced an exponential growth. Presently, within the esteemed confines of the Iranian Research Institute of Plant Protection, this department is considered as one of the most influential parts.

Old dams in ancient Iran

On the contrary to industry or qanat technology, the thought and design of small and large dams in proper places, down the valleys did not just belong to Iranian. As a matter of fact, some other developed countries must have implemented these types of water structures before us. However, Iran is historically considered at the top of the past dam builders.

Agriculture, industry and civilization are partially dependent on dam construction, so it is necessary to indicate the background of dam construction briefly in the world.

Ancient era: About 2900 BCE, M. Menes the founder of the first Egyptian dynasty of kings constructed a dam to control the Nile River in Koshish in order to erect his capital city Memphis 20km downstream of the dam. The height and width of the dam were 15 & 450 meters respectively. Koshish Dam was a rock-fill dam.

There was another dam 30km South of Cairo near Qaravi village (2650-2465 BCE). The reservoir named Moeris it was very extensive, located in Fayum district and its upstream canal was about 400km. This reservoir could control the Nile flood. It had two moveable gates and an earth-fill diversion dam, which delivered water to the farms on the west part of the riverbank. The area of the reservoir was



about 2000 square kilometer with the capacity of 12×10⁹ M3.

There were some old dams constructed on Tigris River about 600 to 700 BCE. Here is a historical report about the subject. When Cyrus the Great defeated Babylonia, he ordered to construct some new water structures in this region. Herodotus stated that Cyrus the Great built a dam on Gyn-

des River which was one of the Tigris branches and diverted water to 60 canals.

In the new era of Babylonia, when Nebuchadnezzar II (605-562 BCE) heard Darius The Great had ordered to construct three dams on Kor River to supply his Capital City Persepolis, he started to build a dam on Abo Habeih in south of Bagdad in order to compet-

itive with the Persian king. Any way dam construction technology flourished by Sassanid kings especially during Shapour the First monarchy.

Middle Ages

It is not so easy to explain the details of dam construction technique in the other countries during the Middle Ages. According to the statements of histo-

rians and foreign scientists, dam construction technique flourished during the end of middle ages. As the first arch dam was Kobar constructed in 14th century between Qom and Kashan.

Dam construction concepts in ancient Iran

First of all, it is necessary to indicate the technical matter related to dam construction. As it was already mentioned, dam construction technique started in ancient era. The Persian term of weir is "Band". The purpose of "Band" is to raise water level in order to divert water to the left and the right riverbanks. The foreigners call it "weir", "wehr" and "deversoir". The old term for weir in ancient Iran was "Shadrarvan".

Weirs in ancient Iran

As far as the irrigation development is directly related to improvement and progression of nations, it would be very interesting to determine date of construction of various weirs in ancient Iran, which have been remained so far. Although it is very difficult, by studying the history books, testing the materials, comparing their kinds and qualities we can approach to the aim. As it was indicated, the age of dams in Iran can't be accurate unless the future investigation approve it.