The Joys of 'Odonating'

- by Pranad Patil

Pic 1: The Black Stream Glider (male)

I remember the incident so vividly. I was leading a small group of wildlife enthusiasts down a muddy track in the Tungareshwar Wildlife Sanctuary. We were looking for butterflies, spiders, frogs and other colourful smaller fauna, which Tungareshwar is quite famous for. This was during the monsoon months and it was drizzling. We stopped at a stream to check for the presence of any small creatures, when suddenly a shiny, black dragonfly came and landed on my backpack. Being an enthusiastic wildlife photographer, I was more than happy to click some close-ups of the obliging insect. When I showed the images of the dragonfly to my friends later, I learnt that it was called a Black Stream Glider. "What a cool name!" I thought. Internet searches revealed more cool names – Hawks, Gliders, Skimmers, the list just went on.

There were a couple of field guides also available on the net, and it did not take me long to add these to my collection of guides. And this is how I started Odonating!

Pic 2: The Common Picturewing (female)

Odonata is a very interesting order of insects. They have been around since the Permian era, which came roughly 300 million years ago. Even back then, they got moulded into a design so perfect, that almost nothing has changed about them since. One thing that has definitely changed is their size. Some prehistoric dragonflies had a wingspan similar to that of pigeons, which is gigantic compared to even the largest ones we see around today. These insects are masters of flight; in fact they are so adept at flying that they have completely lost the ability to walk. Combining excellent vision with their skilled flight turned odonates into pirates of aerial combat. These carnivorous insects catch other airborne invertebrates, including other odonates as well.

It is difficult to imagine a rural-scape in India, without a small, hovering '*chatur*' in some corner, or walking through the grass along a pond without disturbing a delicate '*sui*', which then effortlessly glides ahead of you. Many, I am sure, in their childhood would have caught a dragonfly, tied a thread around its long abdomen

and taken it around as a helicopter. They have been around for ages with their multitudes of colours, hypnotising eyes and flickering flights, but somehow they have escaped our immediate attention.

So why am I going on about this seemingly regular group of insects, which one can assume is doing well? Why am I getting everyone to perhaps start odonating? Well for one, they are easy to find. Even a small tank in an urban garden can boast of 10-12 species, as long as certain conditions are fulfilled. Also, just like butterflies, these are colourful and attractive insects. Being confident of their flight, they are very approachable and easy to photograph too.

Pic 3: Senegal Golden Dartlet (male)

These insects have a very interesting natural history as well. During their larval stages, odonates are completely aquatic. Equipped with gills, these larvae generally live in murky waters and are voracious predators. Possessing a dagger for a jaw, they will hunt anything they can overpower, which includes other aquatic invertebrates, tadpoles and fish, sometimes bigger than themselves. Thus, it is no surprise that most adult odonates are found close to water bodies. Being predators during both their life stages, odonates have performed precious ecological services for millennia. While the larvae prey on the larvae of parasitic

insects like mosquitoes, adults feed on several harmful insects like mosquitoes, flies and fleas, thus providing indispensable assistance, even to us. But by no means are odonates at the top of the food chain. Dragonflies and damselflies regularly fall prey to several insectivorous birds, frogs, spiders and even to other odonates.

As the larvae are aquatic, freshwater bodies are an absolute necessity for these insects. Unfortunately, wetlands have been long looked upon as wastelands in our country. With growing population and industrial progress, wetlands have been indiscriminately targeted to make way for agricultural fields or as dumping grounds for industrial waste. Several odonate species are very good indicators of the health of an ecosystem and are among the first animals to disappear when the habitat is disturbed. Some forest species, associated with hill streams, have been recorded to be extremely sensitive to anthropogenic alterations in their habitats. With wetlands in dire need of protection, studying and understanding key organisms of wetlands, like odonates, is of utmost importance.

Although the diversity of odonates in our country is quite well studied, life cycles of most are not completely known. Neither are we entirely sure about the distribution of most odonates. When it comes to understanding their ecological role or their natural history, we have just scratched the surface. What effect would the disappearance of a particular species have on the surroundings? What biophysical factors in water contribute towards or hamper the growth of the larvae? It is a known fact that some species of dragonflies migrate, but where to and when? The questions can keep on piling, but I think everyone gets the picture here. A detailed study on odonates, using the most modern techniques available, is the need of the hour. And while we take this step towards understanding these marvelous insects better, these childhood friends of ours, can become an influential symbol of wetland conservation.

About the author:

Pranad is a Zoology graduate and currently works as a naturalist. He is an ardent nature lover, amateur wildlife photographer and loves to write about wildlife and ecology. He loves all forms of wildlife, but dragonflies hold a special place in his heart.