

Bumble bee's vision of colour coding in flowers -

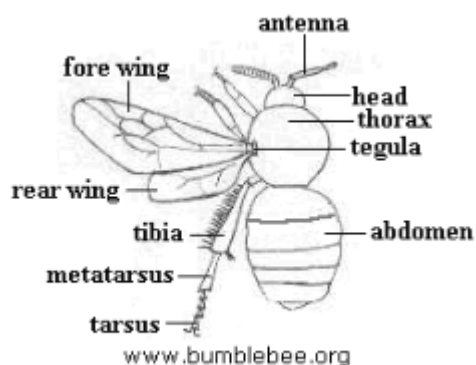
I was going through some of my favourite science journals on the web and found some interesting piece of news about Bumble bees. Scientists from Britain have put some intense research on to this topic and has drawn out some conclusions. I read some of them and I'd like to share it with you through this post.

Now, if some of you are not familiar with bumble bees, here is a quick description of these wonderful creatures.

Bumblebees are social insects that are characterized by black and yellow body hairs, often in bands. However, some species have orange or red on their bodies, or may be entirely black. Another obvious (but not unique) characteristic is the soft nature of the hair (long, branched setae), called pile, that covers their entire body, making them appear and feel fuzzy. They are best distinguished from similarly large, fuzzy bees by the form of the female hind leg, which is modified to form a corbicula; a shiny concave surface that is bare, but surrounded by a fringe of hairs used to transport pollen (in similar bees, the hind leg is completely hairy, and pollen grains are wedged into the hairs for transport).

Like their relatives the honey bees, bumblebees feed on nectar and gather pollen to feed their young.

They look like this.



If you are curious about the bumble bee body, then [read this](#) link.

Anyway , that was a brief intro to bumble bees.I'm now sharing a latest scientific development about the behaviour of these bees.They're very interesting.Read..

Here is an excerpt that I saw on a press release on the internet.

Bees live in a paint box world in which flowers take on different colours depending on the angle from which they are viewed, new research has shown. Flower petals use the property, known as iridescence, to attract pollinators, scientists have discovered.Iridescence has nothing to do with colour pigment but depends on surface structure. Compact discs are an example of a man-made iridescent object.

Scientists already knew that insects, birds, fish and reptiles use iridescence for species recognition and mate selection.The new research shows for the first time that plants use iridescence as well as colour pigment to make themselves attractive to bees.British scientists identified iridescence in Hibiscus and Tulip flowers, and showed that bumblebees could separate iridescence and colour. The bees could also use iridescence as a reward signal.In laboratory experiments, bumblebees were taught to recognize that iridescent discs containing yellow, blue or violet pigments offered a sugary reward. They learned to fly to these discs and avoid others with the same pigments which were not iridescent.



Scientists studying hibiscus petals discovered waxy lines that gave the plants their iridescence. Once the role of the lines was inferred, it was realized that they had been seen on other plants – asters, legumes, buttercups and evening primrose are among the plant families that have the lines.

Bumblebees are able to sense the iridescent colours, and experiments have proved that they can learn which hue will lead to nectar and pollen and which should be left away.A flower that can tell bumblebees that it is rich in nectar will -increase its chances of being pollinated.Now, this was something of which I was highly curious of, and that is the reason I wrote this quick post over here.

Most of the iridescence is ultraviolet, which means that humans can't see them.But bees can see blue and green, like humans, as well as UV light.The study was published in the *Science magazine*, and it showed that plants use iridescence as well as colour pigmentation to make themselves attractive to bees.It means that plants look -entirely different to bees than to humans. It is not caused by colour pigments but by the surface of the petal.This is something that we should consider deeply.

Beverley Glover of the University of Cambridge, who headed this research work published notes on the *Science* Journal. He says the following about this miraculous discovery.

“From gardening to agriculture, flowers and their pollinators play an enormously important role in our daily lives, and it is intriguing to realize that they are signaling to each other with flashing multi-colours that we can’t see.”



Now, think dear friends, how can this sensing technology come in bees ? Who put in these features on to their bodies ? Is it possible for these bees to incorporate these features of their own will ?

Not at all.

When we ponder and reflect on these things, it is impossible to tell that all these miraculous attributes in bumble bees came about by mere chances or co-incidences. These findings by the modern science are revealing the might of Almighty God who installed these wonderful features in these bees. And like all other living creatures, these bees also have a complex biological structure and specific features pertinent to their needs and requirements. All these developments reveal God’s infinite might and artistry. He creates uniquely and everything in the heavens and earth belongs to Him. He reveals to us in the divine scripture.



He is Allah [God], the Creator, the Maker, the Giver of form. To Him belong the most beautiful names. Everything in the heavens and earth glorifies Him. He is the Almighty, the All-Wise.

Quran / Surat –al-Hashr 24

References:

- * The *Science* Journal
- * Google press notes

Document prepared based on a post from www.silentside.net