

Research Paper :

## Survey and seasonal abundance of chrysopids in mango ecosystem of Konkan region

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### SUMMARY

The survey of mango orchards conducted during the year 2007 and 2008 indicated the prevalence of chrysopid in four districts of Konkan region. The species, *M. boninensis* of chrysopid was recorded in all the Tahsils of four districts while the species *C. carnea* was noticed in five Tahsils. *M. boninensis* was found predominant in mango ecosystem of Konkan region. The population of chrysopids was found maximum during the first fortnight of November and December when the temperatures were low and relative humidity was high at the same time the natural population of insects viz., mango hoppers, mealy bugs, scales and thrips were higher on mango trees. The activity of predator remained low during high temperature in the month of April to August.

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### Key words :

Survey, Mango,  
*Mallada*,  
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Mango (*Mangifera indica* Linn.), belonging to the family Anacardiaceae, is universally considered as the finest tropical fruit of the world and has been called, in the orient, "King of the fruits." In many languages it is called the "mother of all fruits". This fruit is rightly known as 'national fruit of India', owing to its nutritional richness, unique taste and flavour, religious and medicinal importance. It is the third widely produced fruit crop of the tropics after banana and citrus. Mango is currently being grown in at least 111 countries spread over five continents with an area of 46.67 m ha with total production of 33.73 m MT. The average productivity is 8.09 tonnes /ha. India ranks first in the world with total production of 13.79 m MT from about 22.05 m ha, which is nearly 43 per cent of the total world area under mango. Other countries which follow India in mango production (m MT) are China (3.75), Pakistan (2.25), Mexico (2.00), Thailand (1.80), Indonesia (1.60) and Brazil (1.54). In India, Maharashtra is one of the major mango growing state which ranking second in terms of area (0.445 million ha) and production (0.71 million tonnes), contributing about 19.13 per cent of total mango production of the country (Anonymous, 2008). Konkan

is the major and famous mango-producing region of Maharashtra.

In Maharashtra, the mango crop is heavily attacked by different sucking insect pests viz., mango hoppers (*Idioscopus* spp. and *Amritodus atkinsoni* (Letheirry), mealy bug (*Ferrisia virgata* (Ckll.), *Drosicha mangiferae* Green), thrips (*Scirtothrips dorsalis* Hood), scales (*Aspidiotus destructor* Sign.), aphids (*Toxoptera aurantii*) and other insect pests like stem borers (*Batocera* spp.), bark eating caterpillars (*Inderbella quadrinotata* walker and *Inderbella tetraonis* M.), shoot borer (*Chlumetia transversa* Walker), leaf Webbers (*Orthaga eudrusalis* Walker), mango fruit fly (*Bactrocera dorsalis* H.) and stone weevil (*Sternochetus mangiferae* Fab.). These pests appear in epidemic as well as in sporadic forms and cause great concern to the entomologists and mango growers. Number of natural enemies of insect pests of mango were reported in mango ecosystem of Konkan region and the different stages of chrysopid also found naturally in the mango ecosystem of the Konkan region of Maharashtra, India.

Amongst many insect predators, the chrysopids are reported to be the well-defined potential predators feeding on immature and

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