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Report on *Drosophila* species in Charmadi
Ghats (Mysore State, India).

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Charmadi ghats, a part of the Western ghats, are situated at a distance of 125 miles northwest of Mysore. This hilly terrain is drenched with rain during the months of July through October. The whole area is packed with thick vegetation and human inhabitation is sparse and confined

to a few areas. Collections were made in September 1971 when the average rainfall calculated was 18.25 inches. The flies were trapped in the midst of rain using icecream cups as protective felts fastened over the 1/4 pint milk bottles to prevent the entry of rain water. Nine different altitudes ranging from 300 to 1025 meters were chosen as collection spots. A minimum of ten bottles containing fermented banana as bait, were tied in each collection spot. Net sweeping was also employed.

The number and species of *Drosophila* collected in the above expedition are all listed in the Table 1. A total of 1478 flies were trapped. Of these, *D. nasuta* and *D. neonasuta* of the

Table 1. A list of *Drosophila* species of Charmadi ghats.

| Species | Altitude in Meters | | | | | | | | | |
|------------------------|--------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|
| | 1025 | 1000 | 900 | 900 | 800 | 700 | 600 | 500 | 400 | 300 |
| <i>nasuta</i> | 68 | 24 | - | 58 | 74 | 34 | 90 | - | 50 | 30 |
| <i>neonasuta</i> | 218 | 14 | 22 | 54 | 70 | 36 | 118 | 20 | 64 | 20 |
| <i>mysorensis</i> | 10 | 8 | - | 40 | 30 | 6 | 6 | 10 | - | - |
| ** <i>neotruncata</i> | 26 | 4 | - | 22 | 14 | - | 2 | - | - | - |
| <i>varietas</i> | 2 | - | - | - | - | - | - | - | - | - |
| <i>nigra</i> | - | 2 | - | - | - | - | - | 7 | - | 2 |
| <i>jambulina</i> | - | - | - | - | 12 | - | - | - | - | - |
| <i>brindavani</i> | - | - | - | - | - | - | 2 | - | - | - |
| <i>immigrans</i> | 44 | 8 | 1 | - | - | - | - | - | - | - |
| <i>takahashii</i> | - | - | - | - | - | - | - | - | - | - |
| <i>melarkotliana</i> | - | - | - | - | - | - | - | - | 4 | - |
| <i>gracilis</i> | 8 | - | 3 | 2 | - | - | 3 | - | - | 20 |
| <i>pseudoananassae</i> | 2 | - | - | - | 6 | - | - | - | - | - |
| * <i>mundagensis</i> | 2 | - | - | - | - | - | - | 5 | - | - |
| <i>charmadiensis</i> | - | - | - | 4 | - | - | 1 | - | 8 | 6 |

* A new species (Nirmala Sajjan, S. and N.B. Krishnamurthy, unpublished)

** A new species (Sreerama Reddy, G. and N.B. Krishnamurthy, unpublished)

nasuta subgroup represent the dominant species as shown by their abundance and contribute nearly to 50% of the total flies scored at each spot. At 1025 meters the members of *nasuta* subgroup are more abundant than at other altitudes. Further in terms of both number of species and density, this altitude is superior. *D. pseudoananassae*, a member of the *bipectinata* complex (Bock 1970), is for the first time reported here from India. One more interesting feature in this report is the finding of a new species of *Drosophila*. This new species is bright yellow in colour with black margin along the posterior part of each tergite. Males have tarsal ornamentation in that there are two sets - one the proximal set with 22 teeth and the distal one with 14 to 15 teeth. Acrostichals are regular in 6 rows. In several respects it is similar to *D. montium* except for the difference in number of teeth in sex combs and shape of the male novasternum. Based on these features (Okada personal communication, 1971) the above species has been given the status of a new species and named after the collection locality as *Drosophila charmadiensis*. Detailed description of this species will appear elsewhere.

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References: Bock, I.R. 1971 Univ. Tex. Publ. 7103:273-280.