The actinomycetes were isolated from soils of Raipur and its suburbs with the aim of testing the organisms and studying their biology. It was revealed that mainly the streptomycetes comprised this flora in 31 species and 13 type strains.

Taxonomically these belonged to the sections Rectus-Flexibilis (11 species); Retinaculum-Apertum (2 spp.); and Spira (13 spp.) in the system of classification proposed by Pridham et al. (1958) for the genus Streptomyces. None of the members belonging to other sections of the classification were obtained. The spira group was the largest in representation followed by Rectus-Flexibilis and Retinaculum-Apertum. In both the Spira and Rectus-Flexibilis groups organisms of the grey and red series were more than those of the white, olive buff or blue series. Streptomyces coelicolor, S. hygroscopicus, S. bikiniensis, and
S. rameus were the larger species as they were distributed in 3 or 4 type strains each. Two distinct type strains occurred in S. gougeroti, S. lavendulae, and S. griseus.

(All of these streptomycetes possessed capacity for nitrate reduction, proteolysis, and starch-hydrolysis. These differed in respect of H₂S production, antibiotic sensitivity, and antibiotic production; and also in their nutritional characteristics evidenced by the significantly different levels of biomass developed by different species. However, variations in these parameters were of a group nature rather than of an individual nature.) Consequently the species S. bikiniensis with 3 type strains; S. gougeroti with 2 type strains; S. fradiae with 2 type strains, S. coelicolor with 4 type strains; S. lavendulae with 2 type strains; S. griseus with 2 type strains; S. hygroscopicus with 3 type strains; and S. rameus with 3 type strains are distinguishable.

In their heterotrophism these streptomycetes elaborated proteolytic, amylolytic, and cellulolytic moieties commonly for the biodegradation of natural substrates. Differentially they elaborated the pectolytic moiety, mainly comprised either of the polygalacturonase or the polymethylgalacturonase or both. The enzyme complex elaborated by each of the
organisms represented its heterotrophic potential, and was a useful feature in the biology of streptomycetes.

A majority of the incident streptomycetes were mesophilic, but *S. streptomycini*, *S. acidomy ceticus*, *S. bikiniensis* (7), *S. albus*, *S. rimosus*, *S. coelicolor* (7) and *S. hygroscopicus* (3) were positively disposed towards thermophilism.

(Individualistic variations in respect of the antibiotic sensitivity, antibiotic production, the exoenzyme heterotrophic potential, and the protein amino acid profiles also pronounced different type strains within a particular species.)