



Report of *Paederus* species in Iran, Mazandaran and Fars provinces, 2012- 2013.

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Introduction

Rove beetles of the genus *Paederus* (family Staphylinidae (rove beetles) with 622 valid species) cause dermatitis when they come in contact with human skin. Dermatitis caused by stimulation of beetle *Paederus*, is a common health problem in Iran especially in Mazandaran (North of Iran) and Fars (South of Iran) provinces.

Methods

This survey was carried out in several different districts of the Mazandaran and Fars provinces over a period of two years, during spring and summer 2012 and 2013. Rove beetles from selected areas were collected during every visit with the help of aspirator, during day hours (10:00-15:30) with hand catch method using.

Results

During spring and summer 2012-2013, totally 334 specimens were collected from eight different parts of Mazandaran (Noor, Chaloos, Noshahr, Raamsar, Amol, babol, Sari, BehShahr), North of Iran. In south, 154 specimens were collected from three different parts (Qaemie, Kazeroon, DehBala) of Fars province. Identification and classification of the collected samples was performed by coiffait key, consultation with an expert and using molecular genomics data were provided in molecular biology lab with DNA extraction, PCR and other technics. According to the results all of north collected rove beetles have been identified *Paederus fuscipes*. South collected specimens had belonged to two different species, *Paederus fuscipes* and *Paederus littoralis*. Among them 28.07% of rove beetles had identified *P. fuscipes* and 71.93% *P. littoralis*.

| Fars (South) | |
|----------------------|--------|
| <i>P. littoralis</i> | 71.93% |
| <i>P. fuscipes</i> | 28.07% |

| Mazandaran (North) | |
|----------------------|------|
| <i>P. littoralis</i> | 0.0% |
| <i>P. fuscipes</i> | 100% |

Conclusions

The greatest number of specimens (334) was collected from north (Mazandaran province) and identified as *Paederus fuscipes*. Other 154 beetles were collected from south (Fars province) were classified in two groups; *Paederus fuscipes* (28.07%) and *Paederus littoralis* (71.93%). The higher cases of dermatitis linearis in these two province can be attributed to beetles dispersion and density, ecology and climate of these two parts of Iran. These differences can be led to the more dermatitis cases in northern Iran.

References

Nikbakhtzadeh MR, Naderi M, Safa P. Faunal diversity of *Paederus Fabricius*, 1775 (Coleoptera: Staphylinidae) in Iran. *Insecta Mundi* 2012; 0267: 1–9.



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