

2006 TAIWAN INTERNATIONAL SCIENCE FAIR

CATEGORY : Zoology

PROJECT : Habit and comparison of the

Opisthophthalmus pugnax and the

Opisthophthalmus

AWARDS : Zoology First Award

SCHOOL : Hoerskool Waterkloof

FINALISTS : Johannes Francois De Villiers

COUNTRY : South Africa

Expo for young scientists

Title: Habitat and comparison of the *Opisthophthalmus pugnax* and the *Opisthophthalmus glabrifrons* (Scorpions)

Name: Jannes de Villiers

Country: South Africa

Contents of abstract:

- a. Purpose of research:** To compare the habitat and physical differences of two burrowing scorpions, *Opisthophthalmus pugnax* and the *Opisthophthalmus glabrifrons* to be found in the Gauteng area (South Africa). Although these scorpions' habitat overlaps, they don't co-occur at the same site.
- b. Procedures:** Numerous field visits were made to collect habitat data if one of the relevant scorpions was found. The data was processed and compared. Close up photos of the two scorpions (using a microscope) were used to compare their physical differences.
- c. Data:** For the habitat comparison, the following factors were used: elevation, soil structure, adaptability to economic development, tunnels and grass length. For the physical differences, photos of the following were taken: tarsus, median eyes, pectines and the genital openings.
- d. Conclusion:** The elevation, location of the tunnels, adaptability to economic development and soil structure are the main reasons why they do not co-occur at the same sites. The physical differences relates mostly to their adaptability to a specific environment.

評語

This research is extremely well executed . As a high school student , the current accomplishment of Mr. De Villiers B absolutely astonishing .