Notes on curious methods of locomotion in two Iguanids from Trinidad, West Indies.

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WHILE working in the Forest Reserve – Palo Seco area of south-west Trinidad, I observed what I believe to be two unreported methods of locomotion for the Iguanid lizards *Anolis chrysolepis planiceps* TROSCHEL 1848, and *Polychrus marmoratus* (LINNAEUS 1758).

Anolis chrysolepis planiceps is believed to be the only native Trinidadian anole. The other species, *A. aeneus* GRAY 1840 and *A. trinitatis* REINHARDT & LUTKIN 1863, are believed to have been introduced from Grenada and St Vincent respectively (Gorman & Dessauer 1965, 1966). *A. extremus* GARMAN 1888 was introduced to Huevos Island off Trinidad from Barbados (Boos 1967).

A.c. planiceps is a forest-dwelling species, more usually heard before it is seen scuttling across forest paths or within cultivated cocoa fields. It rarely climbs except as a last resort, relying on its cryptic colouration for protection.

Early one morning, driving slowly while entering Forest Reserve, I saw a lizard run from right to left across the road. Although I was unable to collect it, I recognised it as *A.c. planiceps*. It started from one side of the road at a noticeably slow pace in the normal quadripedal gait but within one metre rose on to its hind legs with head high and drawn backwards, front legs pressed against its sides and the tail held off the ground in an upward curving arc. The hind legs were spread wide apart and seemed to have a slow windmilling motion. It ran thus almost in slow motion to the other side of the road where it disappeared into the bush. This gait was different from that of *Ameiva* (a teiid) which I have also seen use a bipedal mode. *Ameiva* use it only for long distances and in open spaces to get up to high speed while running, for example on the sand track in the Queen's Park Savannah in the City of Port of Spain.

About two weeks later I saw either the same lizard or another individual close to the spot of the original sighting again use a bipedal gait to cross the road. Bipedal running is well known in the Australian Frilled Lizard, *Chlamydosaurus kingii.* and the Central American Basilisk, *Basiliscus basiliscus.*

Polychrus marmoratus is a medium-sized Iguanid, normally found on the tops of forest trees, on bushes and the trunks of trees along the road edges and it is quite commonly seen on avacado trees in neglected gardens. It tends to be solitary. The females are larger than the males and these females will display and fight violently when they encounter each other, an example of sex-reversed territorial agression which is quite rare in the family Iguanidae.

In 1978 I caught one of these lizards on a bush at the edge of an oil-drilling location in Forest Reserve. The men of the drilling crew, like most Trinidadians, were terrified of this inoffensive and completely harmless lizard. They called it "twenty-four hours", believing that the person on whom it "jumps" or whom it bites will be dead within twenty-four hours. This is a carry-over of a common West African belief related there to lizards of the family Chamaeleontidae which *Polychrus* closely resembles both in appearance and its lethargic manner.

After examining the specimen I walked to the edge of the well location where the ground dropped off in an extremely steep slope of bare earth at the bottom of which the jungle started. About half way down the slope, approximately 10 metres away, standing alone was a small tree 2 or 3 metres high but still below the level at which I was standing. There was a light breeze blowing directly into my face. Grasping the lizard at the base of its tail I flung it vigorously intending that it should fall softly into one of the trees at the bottom of the slope at the jungle's edge. To my surprise, immediately upon leaving my hand the lizard flattened its entire body, with its ventral surface becoming concave, and held its legs widely spread. It glided forward and upward into the light breeze and when it was approximately 2 metres past the small tree previously mentioned it seemed to use its tail as a rudder and, making a perfectly executed turn, landed on the tree. I walked down the hill, recaptured the lizard and, returning to near my original position, again threw it towards the jungle never expecting to see it repeat its manoeuver.

But it did. This time owing to the direction of the throw it could not quite make the distance and instead landed at the base of the small tree. I eventually had to walk down the hill, catch the lizard again, and put it on the trunk of a jungle tree lower down. Once there it climbed slowly upward and disappeared into the upper branches.

The gliding behaviour and ability of this lizard can easily be demonstrated by gently tossing it above one's head when it will be seen to flatten its body immediately in the manner described above.

Gliding has been noted in several other lizards, *Ptychozoon homalocephalum* (Gekkonidae), *Draco volans* (Agamidae), *Holaspis guentheri* (Lacertidae), and *Anolis carolinensis* (Iguanidae) (Bellairs 1969).

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