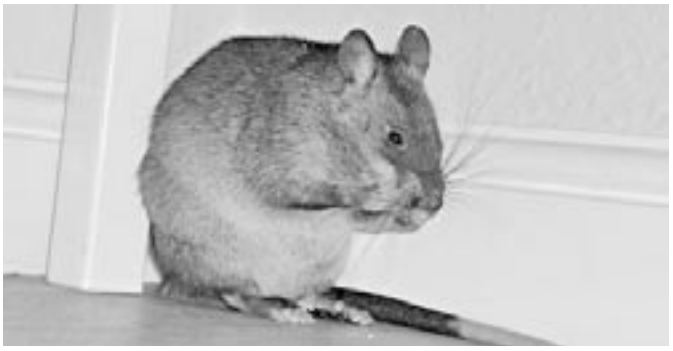
The Possibility of Naturalisation of the African Giant Rat (*Cricetomys gambianus*, Waterhouse 1840) in the Caribbean

The African giant rat or the Gambian pouched rat, *Cricetomys gambianus* [Rodentia: Nesomyidae] is the world's largest nocturnal rat and native to Africa, many thriving in urban settings. Notes on the behaviour and domestication of this rat have been published (Cooper 1998, 1999, 2000). Females normally produce four litters every nine months with up to six pups in each litter (Cooper 2000). Studies have shown that the rat is physiologically adapted to burrowing habits within cool environments (Knight 1988).

The African giant rat, being predominantly vegetarian, can be destructive to vegetable gardens and will readily eat fruits and bulbs, and is particularly fond of avocado pears, mangoes and guavas (Smithers 1975). Vegetable items, oil-palm nuts and kernels, insects, and vertebrate flesh and scales have been found in the guts of this rat (Iwuala *et al.* 1980). Growth performance of these rodents is high with protein intake of 13% (Ajayi and Tewe 1978). The Caribbean provides a nutritionally ideal habitat for this species.

This rat is highly intelligent and it has been used extensively to sniff out mines in former war-torn countries (Mott 2004). There has also been a growing interest in keeping the rat as an exotic pet, hence facilitating its widespread distribution. Some have inevitably escaped and established themselves on the Grassy Key in Florida and scientists are concerned that they may compete with native species, carry diseases and damage the bird population by eating eggs (Epperson 2005). They could easily interfere with bird nests, as they are particularly good tree climbers (Cooper 1998). Others have discussed the possible spread of diseases like *Angiostrongylus cantonensis*, the rat lungworm which has been detected in the Caribbean (Prociv *et al.* 2000; Sithithaworn *et al.* 1991). Some articles suggest that the emergence of Human monkeypox in the U.S.A. is due to rodents (Di Giulio and Eckburg 2004). A Rickettsiale *Grahamella kaniae* has been found in giant rat blood (Gretillat *et al.* 1981).

Shipping has facilitated the apparent introduction of this species into the Caribbean. Given favourable climatic conditions, vegetation and habitat in the islands, the rat has the potential of rapidly reproducing and encroaching on the natural flora and fauna, including marine and coastal habitats. Discussions with fishermen in Port of Spain, Trinidad, have revealed that the giant rat has indeed been seen on ships and boats (Cooper 2005/6 – personal observation). They characteristically identify the rat by its white-tipped tail and size. The original docking ports for the ships, however, are unknown and would need to be established. Additionally, the current population of this rat in the Caribbean must be investigated.



(Photo courtesy: Mr. A. Bickers)
Cricetomys gambianus, female, aged 2 yr and 9 months, weighing 1.5 kg; 95 cm long from tip of nose to tip of tail.

It is therefore advocated that appropriate screening procedures be set up to monitor the possible naturalisation of this species in the Caribbean. The establishment of strict protocols for the carriage of exotic pets on boats entering Caribbean ports should be enforced. Residents in the Caribbean wishing to keep this rat as a pet should be required to have a licence, which ensures proper vaccination and housing requirements.

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