

**TANZANIA FOREST CONSERVATION GROUP**



Tanzania Forest  
Conservation Group  
Shirika la Kuhifadhi  
Misititu ya Asili Tanzania

**AMANIFLATWING MONITORING PROJECT PROGRESS REPORT**



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## Introduction

Amani Flatwing (*Amanipodagrion gilliesi*) is the most restricted, taxonomically isolated and threatened African dragonfly and is one of the most threatened dragonflies of the world. It has been listed as Critically Endangered (CR) on the IUCN Red List of Threatened Species in 2008 ([www.iucnredlist.org](http://www.iucnredlist.org)). Recently this species has been nominated to the list of "100 species at imminent risk of extinction" by IUCN/SSC.

The species is confined to a few 100m<sup>2</sup> at the eastern border of the Amani-Sigi Forest, East Usambara Mountains, Tanzania. Restricted to clear and fast streams in a tiny part of the Amani-Sigi Nature Reserve. Preliminary surveys in nearby forests with similar habitat conditions did not result in the discovery of more populations. Therefore, the limited distribution range makes the species a candidate of high conservation concern. Although the Amani Nature Reserve is legally protected; still the current increase in human population around the forest, illegal logging and small-scale mining poses major threat to its management. A single pollution event for example; illegal gold-mining upstream, might wipe out the species completely.

Therefore this project was initiated aiming to create awareness to the general public about the species, its management threats and also seek participatory action plan on how best we could go about its sustainable management. Secondly, carry out training to the Amani Nature Reserve staff, Tour guides and the adjacent communities so that they are able to monitor management of its population and habitat for a long time.

Therefore in this reporting period of time, the major concentration has been on monitoring seasonality of the species along the small stream nearby Amani-Zigi station. Carry out surveys of more Amani Flatwings populations in different new sites with similar habitat condition within the Amani Nature Reserve. Organize and facilitate public awareness raising meetings with the adjacent communities; as well as preparation of a signboard and posters. The progress is as explained hereunder.

## 2. Constant Monitoring of Amani Flatwing

Following project support, the Tour Guides at the Amani Nature Reserve with support from the office of Conservator have successfully managed to establish abundance, seasonality and factors affecting sustainable management of the Amani Flatwing (*Amanipodagrion gilliesi*) along Zigi stream. These activities were carried out for the period of February to November 2013. The team was visiting the site every week and findings are as explained hereunder. This was the only site known for the Amani Flatwing until the introduction of this project.

Table 1 shows continuous decrease in population of the Amani Flatwing from February to early May 2013. Thereafter, all the population disappeared completely. One of the reasons is the decrease in water quality as well as the increase of water volume and speed. It appeared that, its population started to decrease just after the onset of the long rainfall season (towards the end of March 2013). Following that, the volume and speed of the water in the stream also increased. The water quality also decreased due to flood thus creating un-conducive environment for the Amani Flatwing. Further to that, its habitat condition was also affected with the short rain season during September – October.

**Table 1. Monitoring of the Amani flatwing at Sigi Stream**

Date	Assessor	Amani Flatwing	Comment / Remark
05/2/2013	Viola Clausnitzer	>50	Dry season, clear water in low speed
12/2/2013	Adamu Mkarafu	>10	
19/2/2013	Abduel Kajiru	>10	
26/2/2013	Alois Mkongewa	>10	
06/3/2013	Salimu Hizza	>10	
13/3/2013	Ramadhani Daffa	>10	
20/3/2013	Adamu Mkarafu	>10	
27/3/2013	Abduel Kajiru	>8	On set of rainfall season

Date	Assessor	Amani Flatwing	Comment / Remark
03/4/2013	Alois Mkongewa	>5	Heavy rainfall, dirty water increased volume and in high speed
10/4/2013	Salimu Hizza	>5	
17/4/2013	Ramadhani Daffa	>5	
24/4/2013	Adamu Mkarafu	>4	
01/5/2013	Abduel Kajiru	>2	Heavy rainfall very dirty water increased volume and in high speed
08/5/2013	Alois Mkongewa	>2	
15/5/2013	Salimu Hizza	0	
22/5/2013	Ramadhani Daffa	0	
29/5/2013	Adamu Mkarafu	0	
07/6/2013	Abduel Kajiru	0	End of rain season but water is still dirty and in high speed
14/6/2013	Alois Mkongewa	0	
21/6/2013	Salimu Hizza	0	On set of cold season. Water is clear and slightly low in speed and volume
28/6/2013	Ramadhani Daffa	0	
07/7/2013	Adamu Mkarafu	0	
12/7/2013	Abduel Kajiru	0	Cold season, clear water low in speed and volume
19/7/2013	Alois Mkongewa	0	
26/7/2013	Salimu Hizza	0	
02/8/2013	Ramadhani Daffa	0	
09/8/2013	Adamu Mkarafu	0	
16/8/2013	Abduel Kajiru	0	
23/8/2013	Alois Mkongewa	0	
30/8/2013	Salimu Hizza	0	Shining days, clear water in low speed
06/9/2013	Ramadhani Daffa	0	
13/9/2013	Adamu Mkarafu	0	
20/9/2013	Abduel Kajiru	0	
27/9/2013	Alois Mkongewa	0	Shining, clear water in low speed
04/10/2013	Salimu Hizza	0	Raining dirty water in low speed
11/10/2013	Ramadhani Daffa	0	Shining, clear water in low speed
18/10/2013	Adamu Mkarafu	0	
25/10/2013	Abduel Kajiru	0	
01/11/2013	Alois Mkongewa	0	
08/11/2013	Salimu Hizza	0	
15/11/2013	Ramadhani Daffa	0	

### 3.0 Survey for New Habitats for the Amani Flatwing

The project was also working to establish whether we have new sites / habitats for the Amani Flatwing and if so put forward strategies that would improve and sustain its management for the benefit of the present and future generations. The Tour guides at the Amani Nature Reserves carried out this task with support from the office of the Conservator. Two sites, Kisiwani stream (table 2) and Sengere stream (table 3) were surveyed during this reporting period of time. Similarity in habitat conditions was the key criteria for the selection of these two streams.

Observation is showing that Amani Flatwing were seen only once along the Kisiwani stream during February 2013 (table 2). They couldn't trace them anywhere along the stream thereafter. One of the

reasons is lack of close follow-up thereafter the February event due to delay in release of the funds for the new sites. The funds were released during June 2013 the time that was hardly possible to trace them. Therefore, generally no population of the Amani Flatwing was found in these two new sites for the period of July to November 2013 (Table 2 & 3). May be the same exercise could be repeated for the period of January to June for further future development.

**Table 2. Monitoring of Amani Flatwing at Kisiwani Stream (new site)**

Date	Assessor	Amani Flatwing	Comment / Remark
<b>February</b>		<b>&gt;5</b>	Seen only once
19/7/2013	Alois Mkongewa	0	Human activities (washing)
26/7/2013	Salimu Hizza	0	Cold weather
02/8/2013	Ramadhani Daffa	0	-
09/8/2013	Adamu Mkarafu	0	-
16/8/2013	Abdueli Kajiru	0	Raining
23/8/2013	Alois Mkongewa	0	-
30/8/2013	Salimu Hizza	0	Shining
06/9/2013	Ramadhani Daffa	0	Shining
13/9/2013	Adamu Mkarafu	0	Washing
20/9/2013	Abdueli Kajiru	0	-
27/9/2013	Alois Mkongewa	0	Shining
04/10/2013	Salimu Hizza	0	Heavy rainfall
11/10/2013	Ramadhani Daffa	0	
18/10/2013	Adamu Mkarafu	0	Shining
25/10/2013	Abdueli Kajiru	0	Shining
01/11/2013	Alois Mkongewa	0	Shining
08/11/2013	Ramadhani Daffa	0	-
15/11/2013	Salimu Hizza	0	-

**Table 3. Monitoring of Amani Flatwing at Sengere stream (new site)**

Date	Assessor	Amani Flatwing	Comment / Remark
19/7/2013	Salimu Hizza	0	Stream has similar characteristics like Sigi
26/7/2013	Ramadhani Daffa	0	Cold weather
02/8/2013	Alois Mkongewa	0	
09/8/2013	Abdueli Kajiru	0	Shining day
16/8/2013	Adamu Mkarafu	0	Raining
23/8/2013	Salimu Hizza	0	Shining day
30/8/2013	Ramadhani Daffa	0	Clear low speed water
06/9/2013	Alois Mkongewa	0	Shining
13/9/2013	Abdueli Kajiru	0	Washing
20/9/2013	Adamu Mkarafu	0	Shining day
27/9/2013	Salimu Hizza	0	Shining day
04/10/2013	Ramadhani Daffa	0	heavy rainfall, dirty water
11/10/2013	Alois Mkongewa	0	dirty water
18/10/2013	Abdueli Kajiru	0	clear water
25/10/2013	Adamu Mkarafu	0	Shining
01/11/2013	Salimu Hizza	0	Shining, clear water

08/11/2013	Abdueli Kajiru	0	
15/11/2013	Adamu Mkarafu	0	

#### 4.0 Public Awareness Raising Meetings

Ten village assembly awareness-raising meetings about the Amani Flatwing were successfully carried out during this reporting period of time. This has involved a total of 311 people (63% men and 37% women) from Mikwinini, Magoda, Mbomole, IBC Msasa, Mlesa, Shebomeza, Mashewa, Kisiwani, Shembekeza and Potwe villages. Following that, action plans were reached towards its survival and sustainable management including avoidance of all activities, which leads to water pollution, as well as destruction of the water sources and riverbanks. Almost all communities were concerned about how could one distinguish Amani Flatwing from the other Dragonflies. However this was clearly clarified based on the skills and knowledge acquired during the training, which was carried out early February 2013 to the Tour guides and other staff from Amani Nature Reserve.

#### 5.0 Preparation of Signboards and Posters

Project has supported fabrication and installation of one signboard to raise awareness about the Amani Flatwing; its management threats as well as the immediate requirements for its continued survival. The messages are printed both in English and Kiswahili; located very close to the Amani Zigi gate where is easily accessible to majorities of the communities and visitors to the Amani Nature Reserve (Picture 1 & 2). In addition to that we managed to design and print 8 posters (1m\*2m) 4 in English and 4 in Kiswahili also about the Amani Flatwing.

Picture 1. Signboard depicting messages about the Amani Flatwing both in Kiswahili and English



Picture 2. Signboard depicting messages about the Amani Flatwing both in Kiswahili and English



In addition one newspaper article about the Amani flatwing was published in the Citizen newspaper in February 2013.

