First photographic record of *Danaus chrysippus chrysippus* form *alcippoides* (Linnaeus, 1758) from Nepal

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Abstract

*Danaus chrysippus chrysippus* form *alcippoides* (Linnaeus, 1758) has been photographed for the first time from Nepal. This very rare form was photographed from Pokhara, Kaski in Gandaki Province.

Keywords: Plain tiger, new form, Nepal butterflies, photographic record

Introduction

*Danaus chrysippus* aka the Plain Tiger is one of the commonest butterflies found in Asia, Australia and Africa. However, it has extended its range into Europe as well colonizing several coastal parts of Spain, France, Italy, Greece and islands like Corsica, Sardinia, Sicily and Malta (Burton 2003) \(^1\).

Talbot (1943) \(^6\) established three subspecies of *D. chrysippus* viz.: *alcippus*, *dorippus* and *chrysippus*. Later, the study conducted by Owen & Chanter (1968) \(^3\) concluded them merely as color forms which where sympatric during the year. According to Smith et al. (2005) \(^4, 5\), *dorippus* has been elevated as a separate species, and there are 3 ssp. of *D. chrysippus*, viz: *ssp. chrysippus (=aegyptius)*, *ssp. alcippus* and *ssp. orientalis (=liboria)*. Among these, the one found in Indo-China region is *Danaus chrysippus chrysippus*. Somewhere in Central and East Africa including the Kampala region in Uganda and Khartoum in Sudan, there is a hybrid zone where additional forms are found, viz. *alcippoides, transiens, albinus* and *semi-albinus* (Smith et al., 1998). \(^4\).

Moore (1883) \(^2\) had described 'Limnas alcippoides n. sp.' from Nepal that differed from the Western African specimens of *Danaus chrysippus alcippus* in "forewing having a broader series of white sub apical oblique spots, the white spot below them (between the upper and middle medial veins) is much larger; and there is a lower discal spot on the red area between the middle and lower medians, which is not present in any Western African specimens that I have seen. The hindwing had somewhat less white than the African specimens" (Fig 7). Likely, Marshal and Nicèville have also reported it from plains of Northern India (Sind, Nurpur in Punjab) in the N.W. Provinces (Lucknow) and also from Rangoon (Moore 1883).

Evidently, it is very rare that this form *alcippodes* has been seen in Nepal. Mr. Mahendra Singh Limbu, an avid butterfly photographer/expert from Nepal, further confirms this form to be very rare indeed (personal communication, Nov 7, 2019 at 6:20 AM).

Materials and Methods

A male specimen was encountered in May, 2019 during a photography trip in the forest trails of Sarangkot, Pokhara of Kaski district in mid hills of Nepal. The major floral components of the location were *Castanopsis indica*, *Schima wallichii*, *Lantana camara*, and mostly *Rubus paniculata*. The sighting was recorded capturing photos in Sony Cyber-Shot DSC-HX90V 18.2MP camera. The Global Positioning System (GPS) details of location, altitude and date were recorded on the photos itself. Upon exploring the entire altitude of the same hillock for over several months, only one specimen of this particular form was seen which was flying among tens of other specimens of *Danaus chrysippus chrysippus* (normal orange form). It was seen flying around the bushes of *Lantana camara*, a plant whose flowers most Danaids are fond of.
Results and Discussions
Images of all sightings:

Fig 1-4: Danaus chrysippus chrysippus form alcippoides

Fig 5-6: Danaus chrysippus chrysippus (normal orange form)

Fig 7: Moore (1883) Limnas alcippoides n sp

Table 1: Details of Sightings

<table>
<thead>
<tr>
<th>Location</th>
<th>District</th>
<th>GPS</th>
<th>Altitude</th>
<th>Environment</th>
<th>Time of Day</th>
<th>Date</th>
<th>Number of specimens recorded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sarangkot, Pokhara (Fig 1-4)</td>
<td>Kaski</td>
<td>28°13'02.6&quot;N 83°57'45.4&quot;E</td>
<td>880</td>
<td>Sunny Day Open bush near forest trail</td>
<td>12:44 PM</td>
<td>19.v.2019</td>
<td>1</td>
</tr>
<tr>
<td>Sarangkot, Pokhara (Fig 5)</td>
<td>Kaski</td>
<td>28°13'04.1&quot;N 83°57'42.0&quot;E</td>
<td>850</td>
<td>Sunny Day Open bush near forest trail</td>
<td>10:08 AM</td>
<td>01.v.2019</td>
<td>Many</td>
</tr>
<tr>
<td>Sarangkot, Pokhara (Fig 6)</td>
<td>Kaski</td>
<td>28°13'04.5&quot;N 83°57'41.9&quot;E</td>
<td>858</td>
<td>Sunny Day Open bush near forest trail</td>
<td>10:16 AM</td>
<td>01.v.2019</td>
<td>Many</td>
</tr>
</tbody>
</table>

*Danaus chrysippus chrysippus form alcippoides* (Linnaeus, 1758) had been recorded from Nepal in the past way back in 1883 by Moore. No other photographs of this form have been taken, or even seems to be recorded in recent past. However, in the observed specimen, the lower discal spot on the red area between the middle and lower medians (like in Moore's specimen: Fig 7) is not apparent. So there could still be some variations in this form.

Conclusion
Butterflies of Nepal is a well-researched field of entomology. However, further extensive studies could excavate more mysteries that are hidden in several nooks and crannies of the country.

Acknowledgement
The authors are highly grateful to Mr. Mahendra Singh Limbu and Ms. Anisha Sapkota for their invaluable guidance and support.

References