

Direct competition for nectar in some Patagonian butterflies

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Ritual fighting is common among butterflies, but the physical violence is rarely observed. However, it does occur. Intraspecific violence has been observed between males of *Papilio indra*, which are territorial to the extent that they can tear each other to pieces (Eff, 1962). Physical competition among males for a place on a female pupa is found in *Heliconius* (e. g., Sourakov, 2008). Males of monarchs and some other butterflies attempt forceful mating with females (e.g., Frey, 1997).

Here I present an example of apparent physical competition that does not involve sexual selection, but involves interspecific competition for food among three species of Nymphalidae from

Patagonia. In February 2008, I observed how *Vanessa terpsichore* was repeatedly "attacked" by *Cosmosatyrus leptoneuroides* in the southern Andes, Patagonia, Argentina. Male of the latter species came repeatedly towards male of *V. terpsichore* feeding on a nectar source, which was attractive to many butterflies in the area. Several times, it came into brief physical contact with the feeding butterfly, but was unsuccessful in dislodging *V. terpsichore* from the flowers, although attacks created sufficient discomfort for it to start flapping its wings. The photos presented here were created by capturing individual frames from a digital video. This video, as well as the

video of pupal mating in *Heliconius charithonia* can be viewed at <http://www.lepidopterist.org/butterflies-fighting.htm>

I thank George Austin for bringing one of the references to my attention.

Literature Cited

Efaf, D. 1992. A little about the little-known *Papilio indra minori*. *J. Lep. Soc.* 16(2): 137-142.
 Frey D. 1997. Resistance to mating by female monarch butterflies. North American Conference on the Monarch Butterfly, Jürgen Hoth (editor). 428 pages.
 Sourakov A., 2008. Pupal mating in Zebra longwing (*Heliconius charithonia*): photographic evidence. *News of Lepidopterists' Society.* 50(1): 26-29, 32.

Figure captions (opposite page):

Row 1: *Vanessa terpsichore* approached by *Yramea cytheris*. Rows 2-5: *Vanessa terpsichore* repeatedly approached by *Cosmosatyrus leptoneuroides* in an apparent attempt to dislodge it from the flower. View video at <http://www.lepidopterist.org/butterflies-fighting.htm>

Lepidopterists' Society Election Results

A total of 441 ballots were received in time to be counted. One ballot was received after the deadline and was not counted. The results are (* indicates elected officials):

President Elect		Executive Council		Honorary Life Member		
Astrid Caldas	204	Richard Brown*	300	Charles V. Covell, Jr.*	402	
John Shuey*	208	Charles V. Covell, Jr.*	340	Don R. Davis*	378	
		Steve Fratello	154	Covell	Davis	
		Dan Rubinoff*	195	Yes	402	378
Vice President		Jennifer Zaspel	187	No	19	23
Joaquin Baixeras*	247	Dave Iftner	1	Abstain	20	40
Marcelo Duarte*	294	Charles Patton	1	Percent	0.911565	0.857143
Soren Nylin*	276					
Andreas Zwick	242					
Jackie Miller	1	Jordan Medal				
Kilian Roever	1	Gerardo Lamas	169			
		Felix Sperling*	232			



