

Re: Speciation News...

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 - *Date:* Wed, 27 Jul 2005 01:55:16 -0400 (EDT)
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"Susie Few" <susie'smachine@daddy's.com> wrote in message
[news:dc4gut\\$2k6e\\$1@xxxxxxxxxxxxxxxxxxxxxxxxxxxx](mailto:news:dc4gut$2k6e$1@xxxxxxxxxxxxxxxxxxxxxxxxxxxx)
> <http://news.bbc.co.uk/1/hi/sci/tech/4708459.stm>
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Knowing as little factual relevant details as I do puts me in jeopardy of jarring some hard-nosed specialists but here is, despite all that, a jagged (jumbled and starting to look jaded) jotted-down outline of my reflective (Extrapolating, Pluralistic, Theorizing) reasonings:

The researchers think that the observed new "team strips" (visible wing-markings) exemplify speciation by reinforcement of reproductive isolation.

[I am sure they are right. But I am also inclined to think that their interpretation (as per the article) of how this is so is (as scientists' interpretations often tend to be) tunnel-visioned.]

Most obviously, the team strips exemplify viable (naturally selected from by lifetime situations) heritable variation. And they can be seen – by most basic Evolution-Philosophical Thinking – as a result of primarily constructively causative (i.e. what I mean by "opportunity type") intrinsic and extrinsic (environmental) evolutionary (or positively selective) *pressures*.

The team strips have come to exist as part of a functionally (including, in this context OF COURSE, SEXUALLY) adaptive genetic-neural/neurohormonal-behavioral 'loop'.

E.g., mutual marking-dependent identification of team membership (and prospective mating partners) will of course require that necessary neural [(adaptively) "attention paying/focusing"] functions emerged with or (which is far more likely) before the new speciating "team strips".

An distinctly environmental (ecological) selection pressure that might augment the speciating effect of the new 'team/marking strip' (and of many

Re: Speciation News...

other similar viable heritable variations) is that – given that a first-generation 'team strip type endowment' becomes part of the phenotype of a great enough number of individuals many enough of whom are lucky enough to survive – it will lessen the chance that predators will be drawn to single-out (thus less likely to naturally prune out) the members of budding (just or barely speciated) sub-populations with such new markings (or, for that matter, newly 'genotyped' mannerisms).

And, it seems that the article also adds yet another indicator (if rather more indirectly so ;) to the plausibility of that neurohormonally expressed feed-forward mechanisms of speciation – here most specifically "species demarcating" features – have themselves evolved and is part of many a species of genophenotypes.

This in that (as mentioned in the article – as per the quote below), of the species being studied, those whose members live crowded life-styles, but not those who sparsely populate their habitat, tend to develop more marked markings.

The researchers managed to come up with only a very meager explanation for this (by me presumed to be correct) observation.

Quoting the article:

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"This butterfly study presents evidence that the differences in the male's wing colouration is stronger [when the species share a habitat] than [when they do not]," said the speciation expert Axel Meyer, from Konstanz University in Germany.

"This pattern would therefore support the interpretation that it was brought about by reinforcement, hence natural selection."

The reason evolution favours the emergence of a "team strip" in related species, or sub species, living side-by-side is that hybridisation is not usually a desirable thing.

Although many of the *Agrodiaetus* species are close enough genetically to breed, their hybrid offspring tend to be rather weedy and less likely to thrive.

Therefore natural selection will favour ways of distinguishing the species, which is why the clear markings exist.

"For me, this is a big discovery just because the system is very beautiful," said Dr Kandul. "As much as we can we are showing that [reinforcement] is the most likely mechanism."

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To me, the (inEPTly looming) tunnel-visionedness of this interpretation consists of that the researcher(s) does not look at (or perhaps looks too much straight through) the possibility of a relevant "genetic-neural/neurohormonal-behavioral loop".

P

- **References:**

- ◆ **Speciation News...**

- ◇ *From: Susie Few*

- Prev by Date: **Re: Optimal diversification in Avida**

- Next by Date: **Re: Essay: What is Life?**

- Previous by thread: **Speciation News...**

- Next by thread: **Dinosaur Omelettes**

- Index(es):

- ◆ **Date**

- ◆ **Thread**