



Eksempel på et litteraturreview

Dette eksempel bygger på en opgave skrevet af studerende på Bio Science, AU (review in behavioural biology). Opgaven har opnået en god bedømmelse og er gengivet med tilladelse. Indholdet er udarbejdet af Tine Wirenfeldt Jensen.

INTRODUKTION (UDDRAG)

- Eksempel på præsentation af fagligt emne med brug af fagterminologi og med henvisninger til eksisterende litteratur.
- Beskrivelse af opgavens formål, opbygning og delelementer
- Eksempel på motivation af emnet – hvorfor er det relevant?

Eksempel:

Sex is most often determined genetically, where the combination of sex chromosomes inherited from the parents decides the sex; however, there are some examples of other mechanisms for sex determination. **Environmental sex determination (ESD)**, where the sex is decided after conception under influence of an environmental factor, is a well-known phenomenon in reptiles, where the outcome of sex determination is temperature dependent (Bull, 1981). ESD is also found in other animal groups such as **nematodes, isopods, and echiurids**, and here sex determination relies on host size (nematodes) or **conspecific interactions (isopods and echiurids)** (Bull, 1981). An extreme form of ESD is found in 27 fish families (spread on seven orders), including some groups of reef fishes such as the wrasses, parrotfishes, gobies, and damselfishes (Godwin, 2009), as well as in some crustaceans (Gavio, Orensanz, & Armstrong, 2006), and molluscs (Collin, 2006).

In this review I will examine what is known about socially controlled sex change in reef fishes with a focus on the anemonefishes (damselfishes, Family: *Pomacentridae*, subfamily: *Amphiprioninae*), take a look at the evolutionary background, and examine how this behaviour is maintained.

It is interesting to examine the background from which protandry might have evolved, and how this somewhat odd behaviour can be maintained, because it is so different from the reproductive history of mammals.

INDDRAGELSE OG DISKUSSION AF KILDER/UNDERSØGELSER

- Eksempel på hvordan forskellige kilder/undersøgelser relateres til emnet/problemstillingen.
- Eksempler på præsentation af forskellige kilders perspektiver.

Eksempel:

Anemonefishes are obligate symbionts, and they inhabit sea anemones that offer protection from predators, and room for nesting, in turn of the anemonefishes protecting the sea anemone from its predators (Holbrook & Schmitt, 2005). A colony consists of a monogamous reproducing pair, and between zero to four sub-adult non-breeders (also known as subordinates) (Buston, 2003b). Studies have shown that the fish inhabiting the same host show low genetic relatedness (Buston, Bogdanowicz, Wong, & Harrison, 2007; Buston, Fauvelot, Wong, & Planes, 2009)

Monogamy usually only occurs under the EPP if cooperative defense of territory, biparental care, and mate guarding is essential to increase reproductive fitness of the dominant member(s) (Emlen & Oring, 1977). These criteria do not hold in the anemonefishes, as they are monogamous, even though they leave territorial defense to the dominant female (likely because of her size), egg care to the male, and they do not have extensive mate guarding (Hattori, 2012).

KONKLUSION

- Eksempel på opsummering af opgavens vigtigste pointer og diskussioner.
- Eksempler på at emnet i konklusionen sættes ind i en større sammenhæng.

Eksempel:

Socially controlled sex change known as protandry is found in the anemonefishes, and it is an extreme form of environmental sex determination. It is based on a size dependent fecundity that makes it possible to increase the reproductive fitness by having a larger female than male, as predicted by the size dependent hypothesis. Protandry is thought to allow a group of little related individuals to live together although only two individuals participate in reproduction, and the non-breeding individuals tolerate this because they are waiting for their turn to reproduce. As long as the subordinates maintain the strict size difference to their adjacent ranked fish, they are allowed to stay in the group. The frequency of the use of sex change in protandric anemonefishes appears to be related to the availability of other available host sea anemones.

In short: if Finding Nemo had been true to all facets of life as a clown fish, Nemo's father would have changed into a female (except if other hosts were readily available), Nemo would have been the reproducing male – and it would probably not have been a children's movie.