

# Current concepts in flamingo husbandry and biology



Paul Rose



# Overview

- Flamingo natural history and behavioural ecology.
- Captive husbandry issues.
- Breeding and population management.
- Health and welfare.
- Conclusions and time for questions.





# The main themes of this talk:

To provide an over-view of flamingo behaviour and biology that is useful and applicable to those keeping, exhibiting and breeding flamingos in aviculture.

To show why we should consider what flamingos are evolved to do (and what they need to do) when we are designing enclosures, and developing husbandry routines.

# 1. Flamingo natural history



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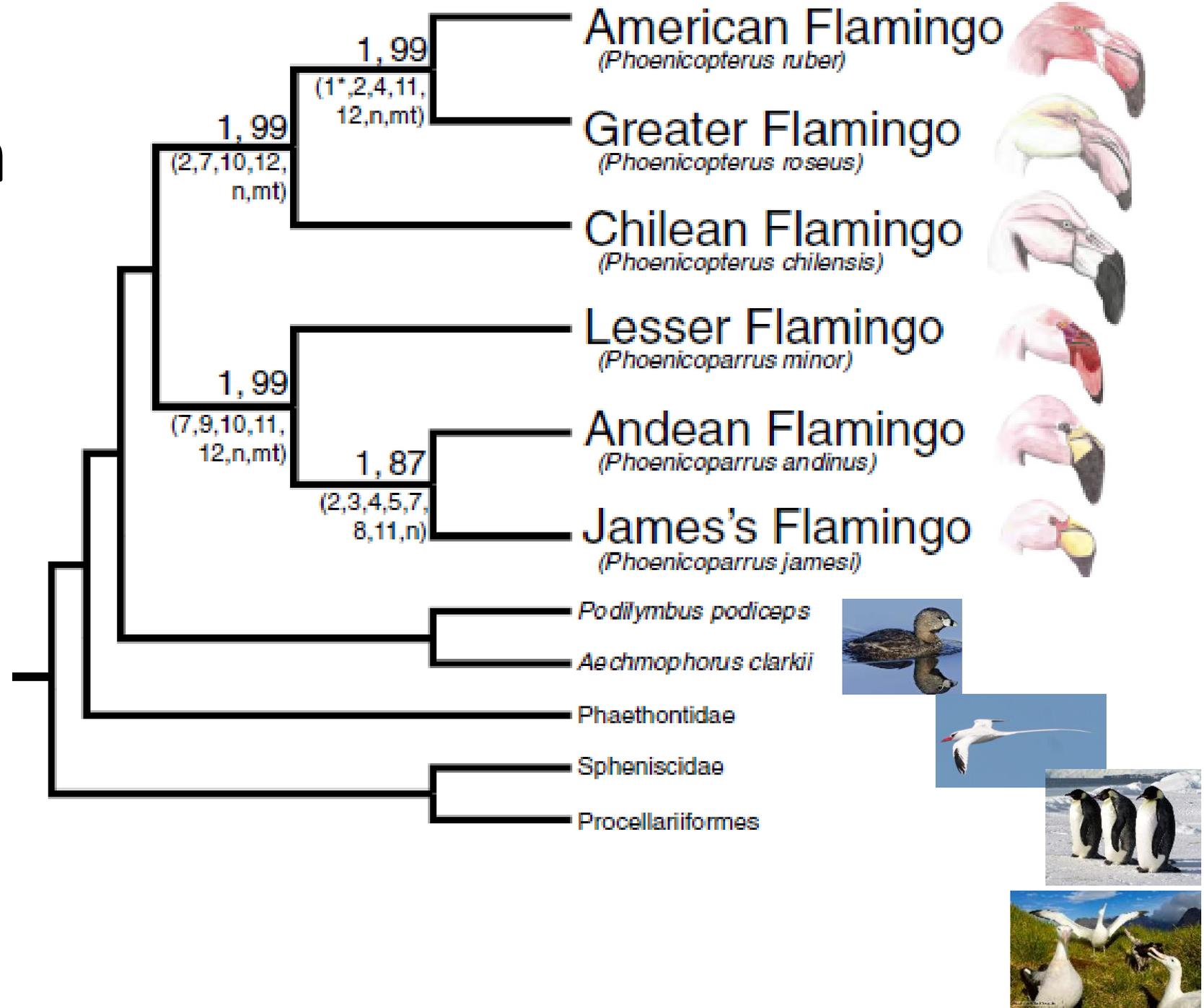
# Conservation listings from the IUCN.

All data from BirdLife International.

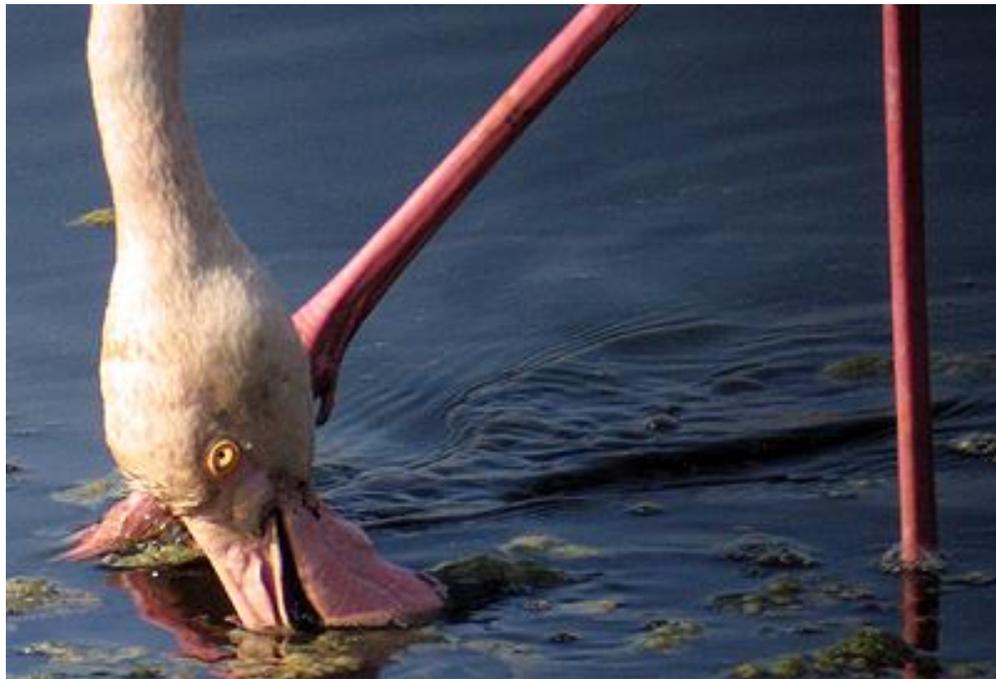
| <b>Species</b> | <b>Population</b> | <b>Trend</b> | <b>Status</b>   |
|----------------|-------------------|--------------|-----------------|
| Greater        | c680,000          | Increasing   | Least Concern.  |
| Caribbean      | c330,000          | Increasing   | Least Concern   |
| Chilean        | c300,000          | Decreasing   | Near Threatened |
| Andean         | c38,000           | Decreasing   | Vulnerable      |
| James'         | c106,000          | Decreasing   | Near Threatened |
| Lesser         | c3,240,000        | Decreasing   | Near Threatened |



# New information on evolution.



# Feeding style and feeding apparatus



Habitat: an important consideration for enclosure features.



# Biology & habitat: important consideration for enclosure features...

- James' flamingo: <https://www.youtube.com/watch?v=B0ltyOrKnjs>
- Greater flamingo: <https://www.youtube.com/watch?v=uMB8VbY3oZ4>
- Lesser flamingo: <https://youtu.be/9tkJ5jIZ-x4>

## 2. Captive husbandry issues

# Water depth and space for swimming.

- All flamingo species like to swim.
- A range of water depths are helpful for this.
- Helps to encourage activity in the flock overall.



# Wild lesser flamingos in Lake Manyara, Tanzania



# Inactivity; birds need to do stuff!

- Flamingos do spend more time preening than the majority of other bird species, but a lack of a desire to forage or move around an exhibit can lead to health problems.



# Flight restraint... a contentious issue.

- I am not here to get into an argument over the advantages and disadvantages of feather trimming or pinioning, but it is important to consider how flamingos are going to be kept in one place, and hence this affects the enclosure that is managed.



# 3. Breeding and population management.



Colour: an important indicator of breeding potential.



# Courtship



Know your birds.  
Especially those that  
initiate courtship. The  
influence of these birds  
will rub off on others.

Ensure that chicks get enough food.



Space for nesting and chicks to crèche.



Flock dynamic; keeping juveniles “steady”.



# 4. Health and welfare



**THE  
FLAMINGO  
WELFARE &  
BEHAVIOUR  
PROJECT**

# Space. It's very important.

Enclosures must promote: foraging, exploration, social exchange.



# Substrate quality, hygiene, cleanliness.



Preventing foot problems starts early.



Time of year (for breeding) seems to affect overall chick health and vitality.



Especially for high-altitude species.



# Want a measure of flamingo happiness?

- Clumped together



- Or spread apart



- Vigilance behaviours, amount performed. High?



- Or Low?

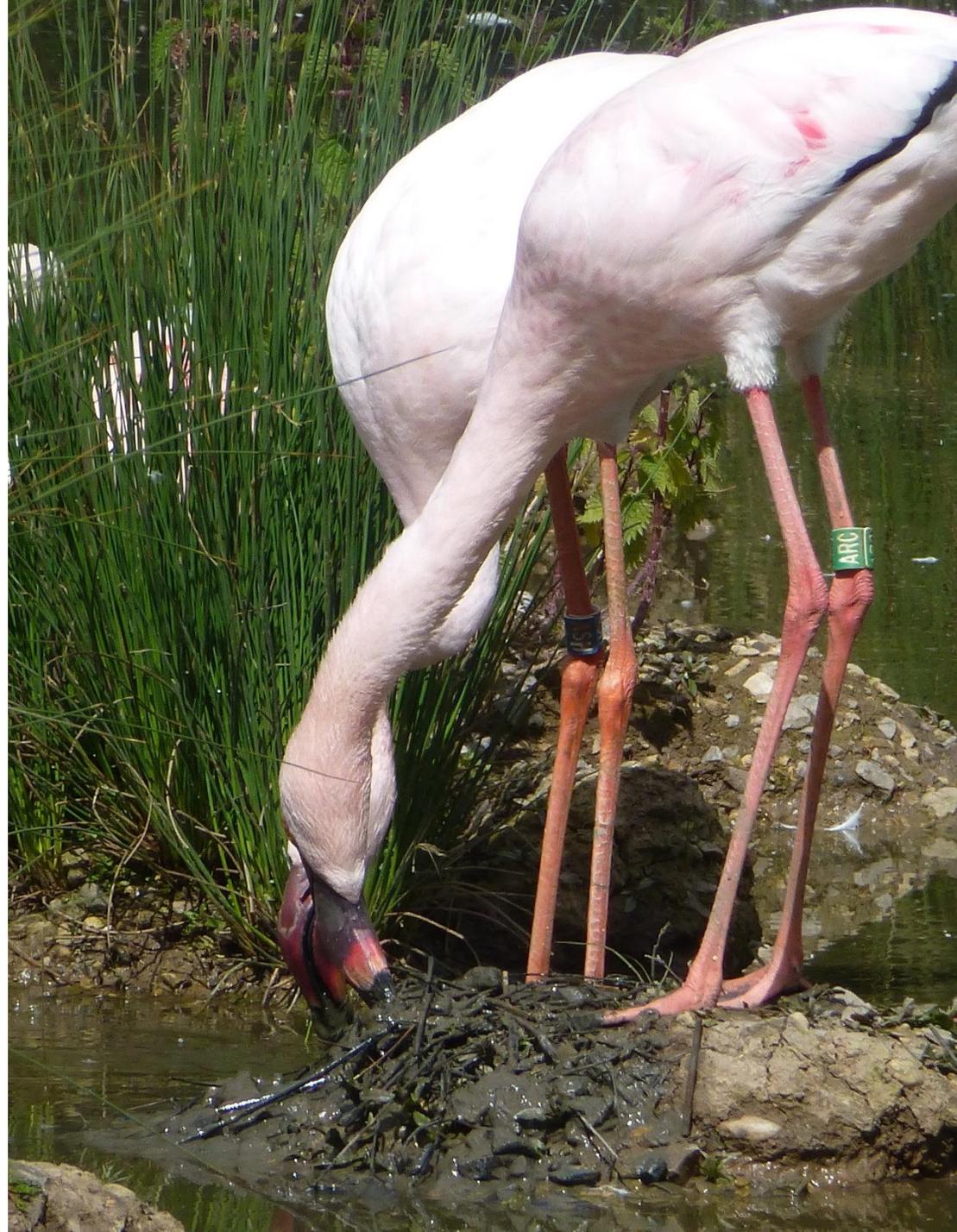


# Lessers need extra care.

- My suggestions for “happy” lessers...
  - ✓ Salt.
  - ✓ Warm water
  - ✓ Ground (milled) food.
  - ✓ Double-rubber matting to cover all concrete.
  - ✓ *Ad-lib* access to housing.
  - ✓ Heat lamps
  - ✓ Clipping or fully-winged.



These are just personal observations / anecdotes and are not based on fact. Just here for your own considerations.





# Overall conclusions.

- ✓ Swimming! Think water depth.
- ✓ Nest site position; cover and protection (make an incubating bird feel safe).
- ✓ Sanded areas for new chicks (new feet!)
- ✓ Salt water provision has potential benefits.
- ✓ See where your flock is, and how “comfortable” they look (clumped together? spread apart? vigilance?).



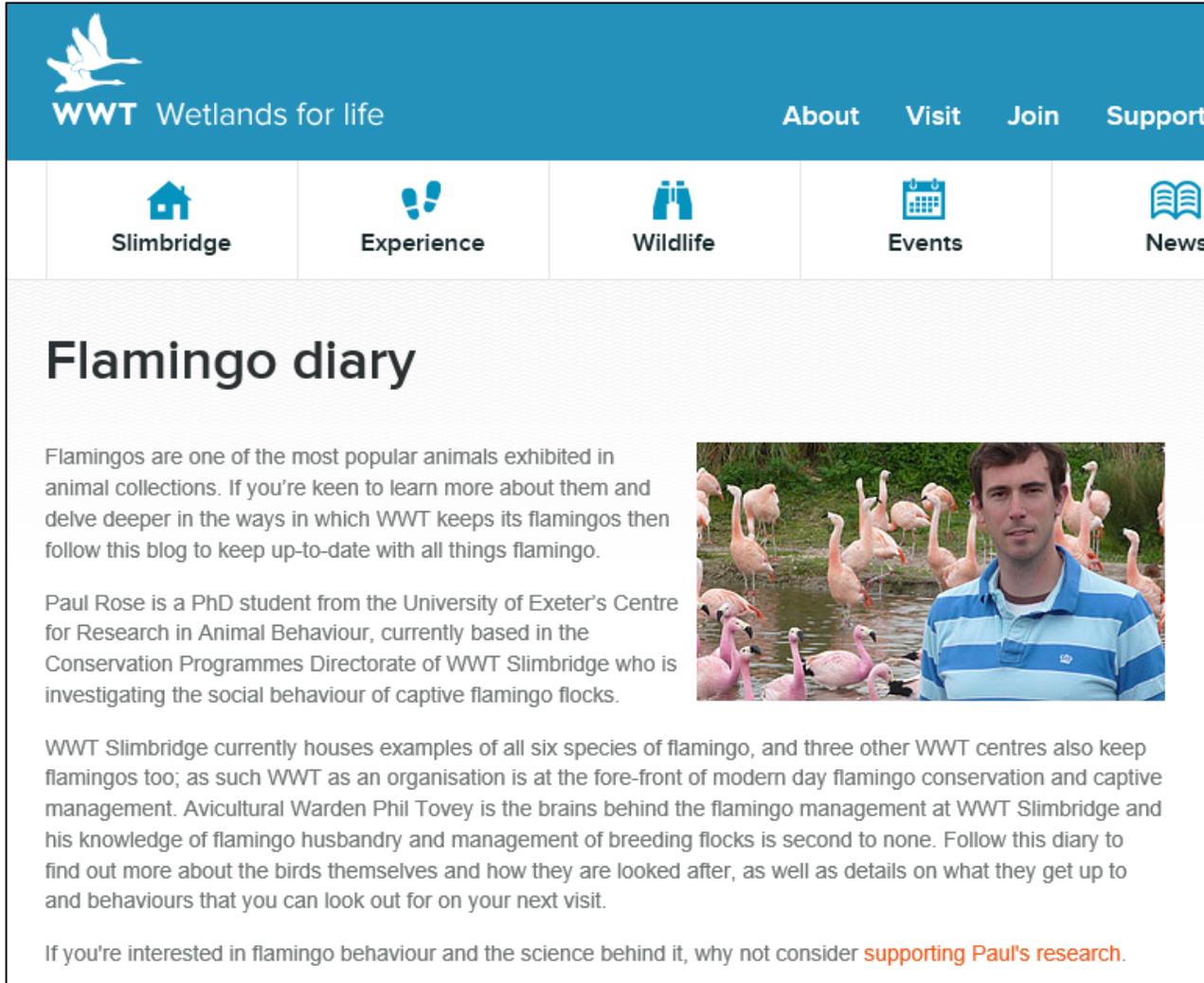
# A plug for the FSG Facebook page!



A screenshot of the Facebook page for the Flamingo Specialist Group. The page header shows the group's name, 'Flamingo Specialist Group Organisation', and navigation tabs for 'Timeline', 'About', 'Photos', 'Likes', and 'Videos'. The 'PEOPLE' section indicates 1,479 likes. The 'ABOUT' section contains the following text: 'The IUCN Flamingo Specialist Group (FSG) is dedicated to the conservation of the world's six flamingo species. Twitter feed @flamingospecgrp' and a link to 'http://www.wetlands.org/Aboutus/Specialistgroups/Fl...'. The 'PHOTOS' section displays a grid of six images related to flamingos. A featured post from the group, dated '1 hr', includes a link to a WCS blog article titled 'http://blog.wcs.org/.../salt-is-essential-to-life-flamingos-.../' and a large photograph of a vast flock of flamingos in a wetland. The post text reads: 'WCS Wild View: Salt is Essential to Life for Flamingos' followed by a description: 'Flamingos love these lands managed by Morton Salt. They flock to the dinner table on Great Inagua. The numerous shallow salt pans are teeming with algae and small invertebrate like brine shrimp—both on the flamingos' list of favorite foods. – Julie...' and the source 'BLOG.WCS.ORG'.

[www.facebook.com/FlamingoSpecialistGroup](http://www.facebook.com/FlamingoSpecialistGroup)

# Want to know more?



The screenshot shows the WWT website header with the logo and navigation links: About, Visit, Join, Support. Below the header is a menu with icons for Slimbridge, Experience, Wildlife, Events, and News. The main content area features a blog post titled "Flamingo diary".

**Flamingo diary**

Flamingos are one of the most popular animals exhibited in animal collections. If you're keen to learn more about them and delve deeper in the ways in which WWT keeps its flamingos then follow this blog to keep up-to-date with all things flamingo.

Paul Rose is a PhD student from the University of Exeter's Centre for Research in Animal Behaviour, currently based in the Conservation Programmes Directorate of WWT Slimbridge who is investigating the social behaviour of captive flamingo flocks.



WWT Slimbridge currently houses examples of all six species of flamingo, and three other WWT centres also keep flamingos too; as such WWT as an organisation is at the fore-front of modern day flamingo conservation and captive management. Avicultural Warden Phil Tovey is the brains behind the flamingo management at WWT Slimbridge and his knowledge of flamingo husbandry and management of breeding flocks is second to none. Follow this diary to find out more about the birds themselves and how they are looked after, as well as details on what they get up to and behaviours that you can look out for on your next visit.

If you're interested in flamingo behaviour and the science behind it, why not consider [supporting Paul's research](#).

Go to:  
[www.wwt.org.uk](http://www.wwt.org.uk),  
then search for  
“flamingo diary”

Thank you for your interest, any questions?

