

# The HCM-List

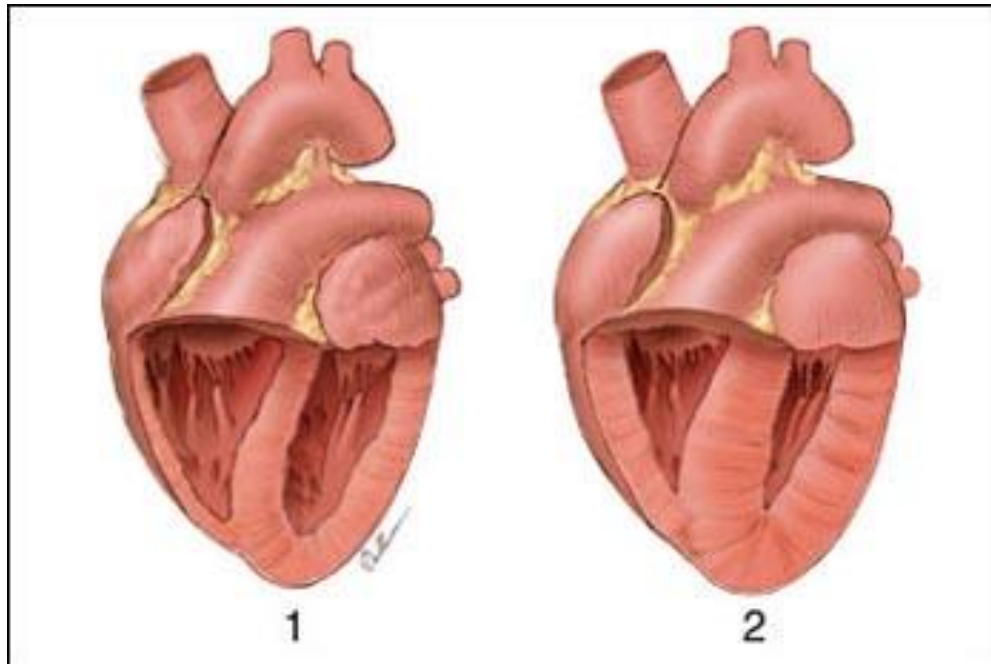


Boris Ehret and Sabine Wamper

# HCM

## Hypertrophic Cardiomyopathy

Normal feline heart



Feline hypertrophic cardiomyopathy

HCM is a heart disorder in which the left wall of the heart grows and thickens.

# HCM

## Hypertrophic Cardiomyopathy

- HCM leads to a reduced ability of the ventricle to fill with blood.
- This leads to an accumulation of blood in the left atrium, and to an insufficient quantity of blood being pumped around the body.
- The blood accumulation at length becomes so large that the lungs are affected and start to fill with fluid (pulmonary edema).
- Blood clots (thrombi) might occur as an additional complication. This can lead to a partial or full paralysis.

# HCM

## Hypertrophic Cardiomyopathy

### **Symptoms may include:**

- Lethargy and anorexia (weight loss).
- Rapid and noisy breathing.
- Irregular heart rhythm and/or heart murmur.
- Paralysis of the hind legs.

### **But**

- **A cat with hypertrophic cardiomyopathy may display no symptoms at all, but die suddenly and unexpectedly.**

# Is HCM genetic?

- HCM in **humans**, in the majority of cases, is an inherited genetic disorder, with over 200 genetic mutations in 10 genes already identified.
- Children of a single HCM parent have a significant higher chance of inheriting the disease-causing mutation.
- There is an incomplete penetrance.

# Is HCM genetic?

- Genetic mutations and predispositions are known to lead to HCM also in cats.
- Genetic mutations have been identified in both the Maine Coon breed and the Ragdoll breed. However Maine Coons and Ragdolls have different defects (in the same gene).

# HCM and Darwinism

- HCM occurs more often in cats five to seven years of age, although the age range of reported cases ranges from three months to 17 years.
  - Cats who do not live as pets in a house hardly ever get very old. Therefore HCM does not affect their life expectancy and their ability to breed.
- > HCM can also affect wild cats (ALCs)

# HCM

what can we do to minimize the risk?

**DON'T  
PANIC  
BUT...**





# HCM

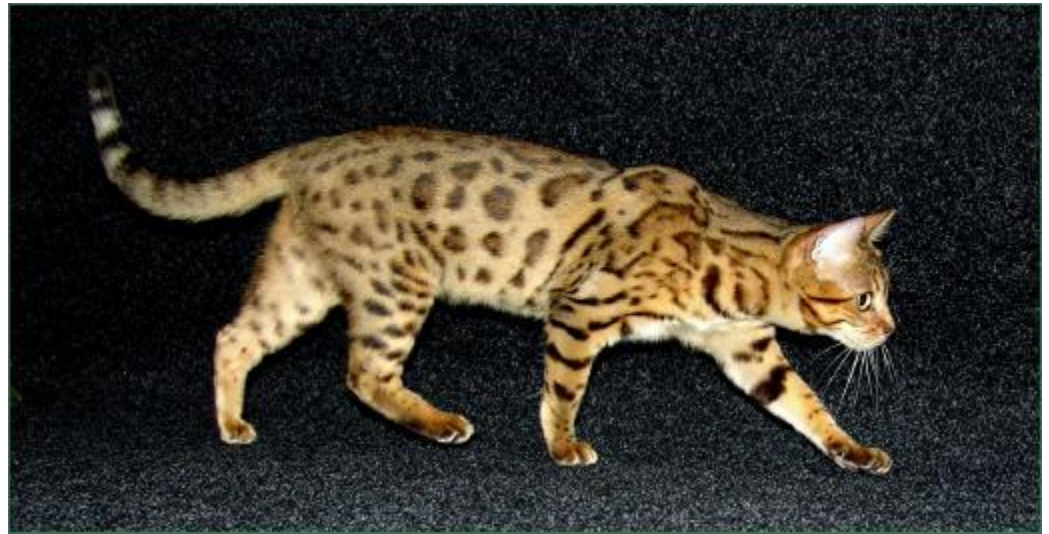
## what can we do to minimize the risk?

- Echocardiogram (heart ultrasound) is the best diagnostic tool for HCM. The cardiologist will evaluate the size, shape and functioning of the heart. Our breeding stock has to be tested regularly.
- The more we know about the family history of our breeding cats, the better we can estimate how risky a certain mating is.
- This is why the **HCM List** can be a useful tool for any Bengal breeding program.

# The HCM List

- 2004 – first postings about HCM on Bengals-L.

- 2007 – Sésame died of HCM.



- 2010 (March) First version of the HCM List. It was meant to be the appendix of an article I wrote for the German Bengal Bulletin.

# The HCM List

- 2013 – September: over 200 cats are now recorded on the HCM List.
- We try to update the HCM List once a month.
- Once in a while the authors of the HCM List get publicly or privately insulted.

# The goal of the HCM List

- The HCM List tries to keep track of all the HCM+ results published on the Bengal-L or other lists by sincere and reputable breeders. (The breeders who aren't sincere nor reputable never post their HCM+ results!!). We also consider the HCM+ results published by the cardiologists on Pawpeds.

# How the HCM List works

- The **owner** or the **breeder** of a cat who has been screened positive can add their cat to the list (not a third person who is not directly involved).

*Please don't forget to send us always the HCM report and the pedigree!!*

- If a **cardiologist** publishes a HCM + result on Pawpeds, the cat will also be added to the HCM List.

# Important:

- **The HCM+ list is not based on rumours but only on the cats, who's positive results have been declared by the cat's owners, breeders or cardiologists.**

*(We can't see any reason why a concerned owner or breeder would publish a HCM+ result if the report shows the contrary.)*

# Verified or non-verified?

- We always ask the person who wants to add a HCM+ cat to send us the report. If we get to see the report, the cat will be posted as “verified”. We would love to see the reports of all the cats listed on the HCM List...

*unfortunately in the past this was not always possible*

# Verified or non-verified?

- Protection of data privacy doesn't allow us to publish the HCM reports of the verified cats.
- Everybody is free to ask the owner or breeder of a HCM+ cat to show him the HCM report.

*(But again: We can't see any reason why a concerned owner or breeder would publish a HCM+ result if the report shows the contrary.)*



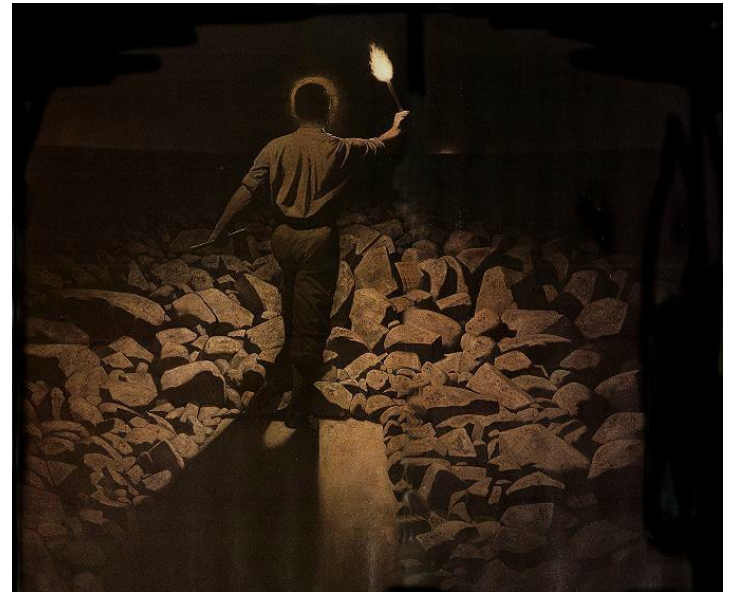
# How the HCM List works

- We would very much like this HCM List not to be “our personal list” but a list of the Bengal community.
- Let us know if there are faults: are there cats missing? Are there cats on this list that shouldn't be on this list because recent HCM reports show that they are negative?

# Are all the HCM+ Bengals on this list?

- **No!** The HCM list is certainly not complete: Cats of persons who do not test or who do hide their results will never appear on the HCM list!

But this does not mean,  
these cats are healthy...



# Are all the HCM+ Bengals on this list?

- Now there are a little over 200 cats listed on the HCM List. We know of many other cats who tested positive and who should be on the HCM List - but we are not allowed to publish their names.
- Although the HCM List is quite impressive, it never shows the true impact that HCM is having on our breed!

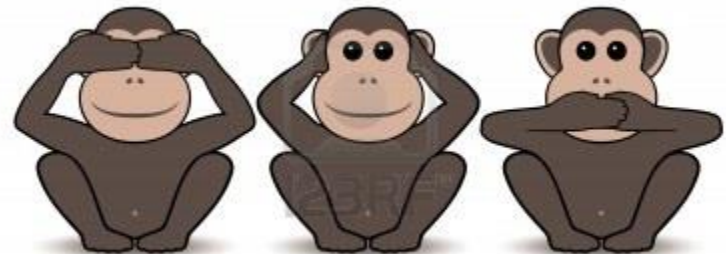


# Why some breeders are afraid to publish HCM+ results?

- Probably some breeders fear that if the name of their cattery figures on the HCM List, they will no longer be able to sell their kittens.
- Do you breed for the money or to improve the Bengal breed?

# But: would you rather buy from...

- a reputable and sincere breeder who talks with you about the health problems in his lines...
- or from a breeder who tries to hide the truth



# Hiding the truth - unethical doings:

- We know that some breeders would refund you a HCM+ cat **ONLY** if you sign a contract that doesn't allow you to publish the name of the HCM+ cat.  
*(We have a copy of such a contract!)*
- Perhaps this is a reason why the names of some catteries hardly ever appear on the HCM List.

# Hiding the truth - unethical doings:

- Some breeders update their Web-pages as soon as their cats test negative. Later, if the same cat gets a positive result, they "forget" to update the Homepage and the cat remains listed as HCM-.

*(We have prove of such neglects!)*

# Hiding the truth - unethical doings:

- We have already seen falsified HCM reports – even that exists...

*(We have prove of this fraud!)*

- **Never forget: unfortunately not all Bengal breeders are ethical.**

**-> don't be naïve and stay vigilant!!**



# Recommendations before buying a breeder cat

- Find a breeder you can really trust!
- Ask for **recent** HCM reports of both parents - possibly also of the Grand-Parents.
- Study carefully the pedigrees and try to find out as much as possible about the history of the family. Check the HCM List!

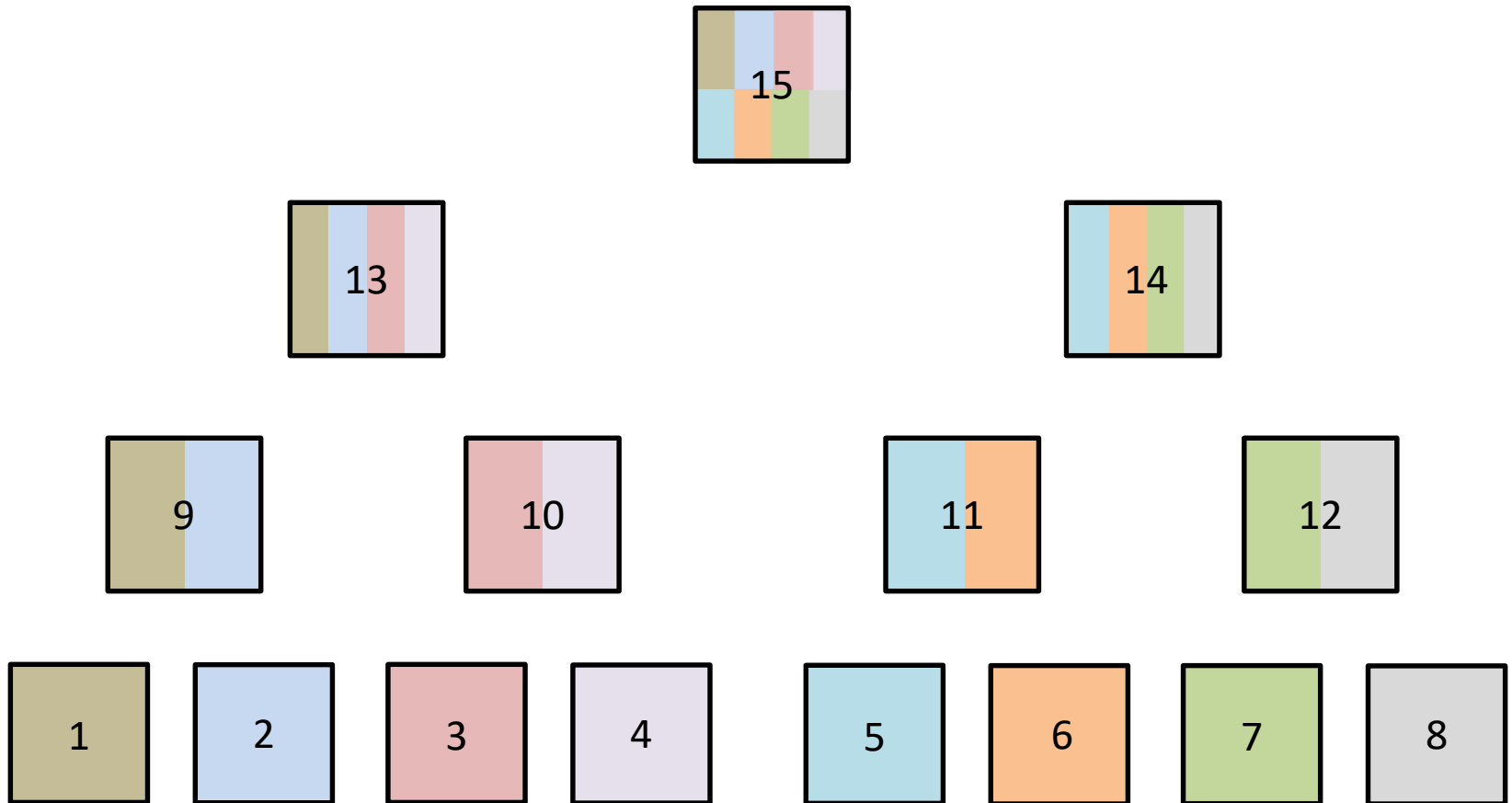


# Recommendations before buying a breeder cat

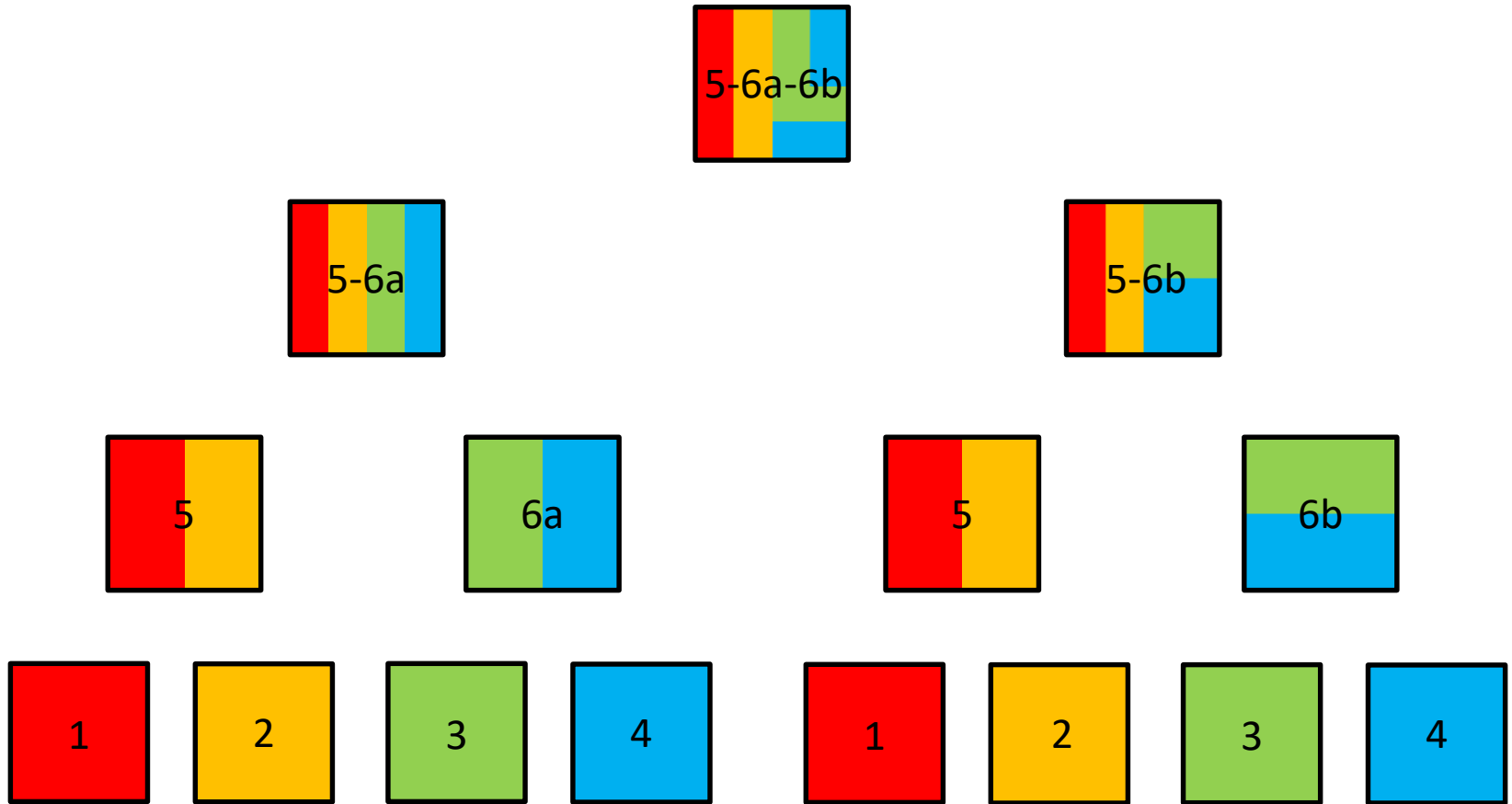
- We should take good care of the Bengal gene-pool !!!



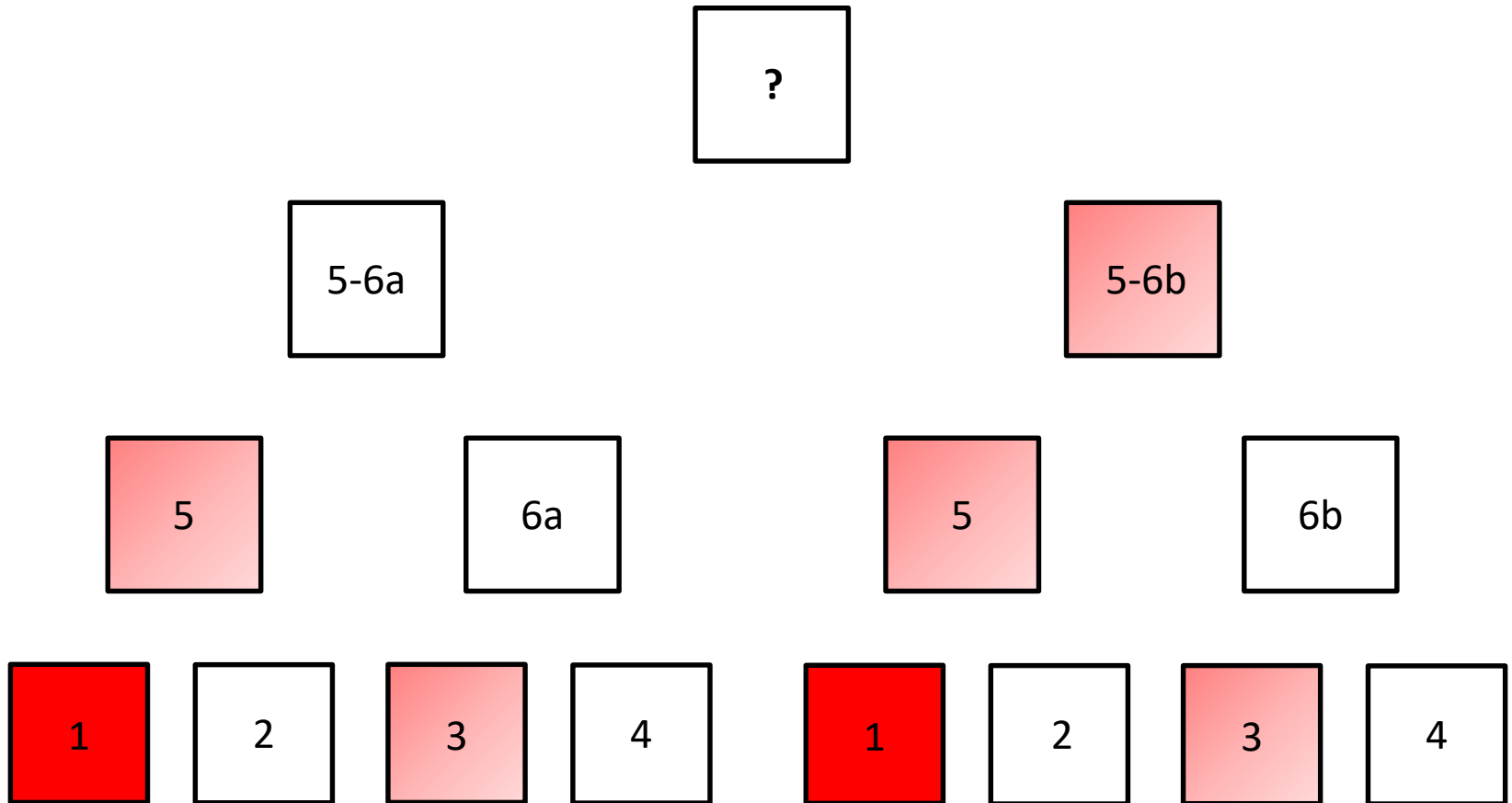
# A normal pedigree



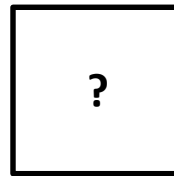
# Example of a pedigree



# The situation in spring 2004



# Would you have produced this cat?



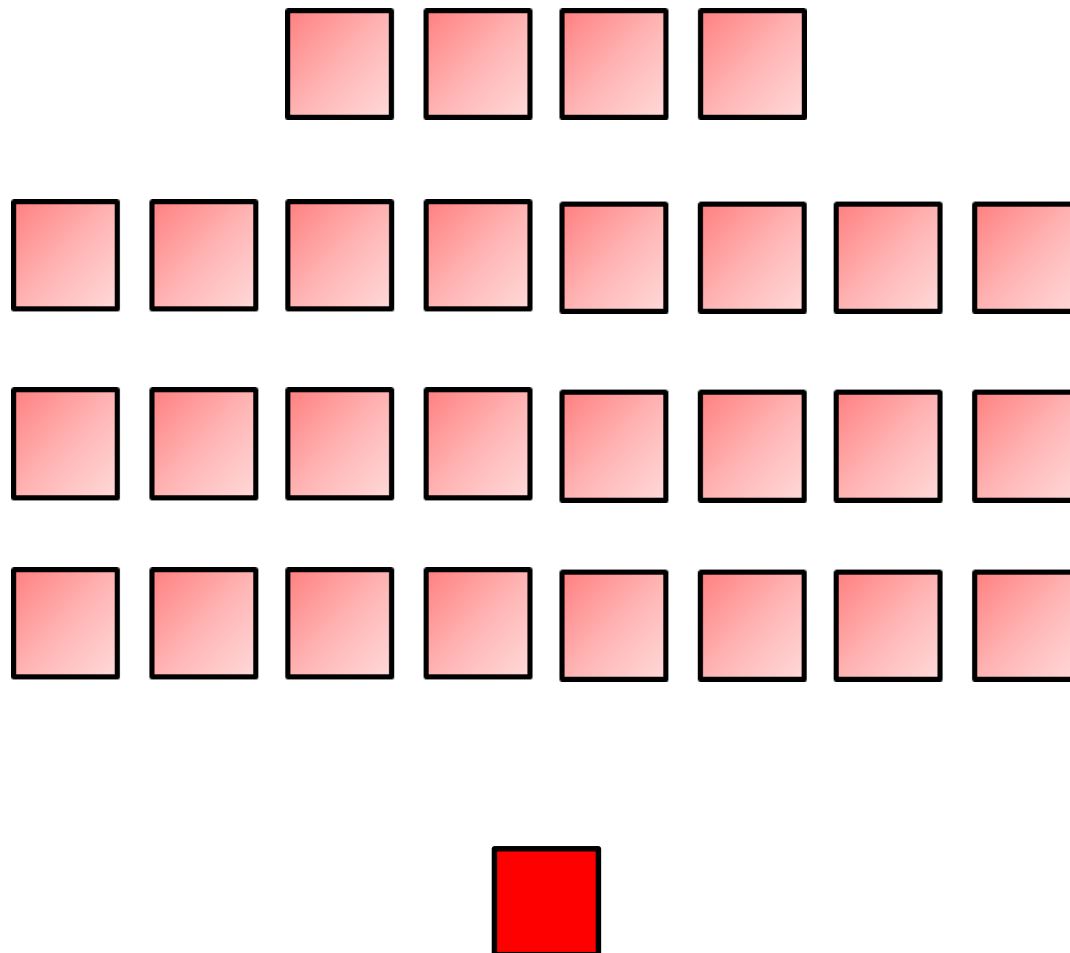
**This cat was produced – at least 4 cats (3 boys and 1 girl) out of this breeding were used in different breeding programs...**

**According to *bengalpedigrees.com* one of the boys sired 7 breeders. He is the the Grand-Father of 21 breeding cats!**

An other example:  
this boy died 2005 because of HCM



He is the father of 28 cats sold as breeders between 2003 and 2005...





# **The future of the HCM List**

- **If you want to join our team, you are very welcome!**
- **We would like to work on behalf of TIBCS.**

# The HCM List

- **Thank you to those who are coming forward to help the Bengal breed by submitting important genetic health information .**

