Naga traditional knowledge and Asian hornet rearing

*Femi E. Benny[1], Thejavikho Chase[2], Seirian Sumner[1], **Cintia Akemi Oi[1,3]****

[1]Centre for Biodiversity & Environmental Research, GEE Department of Genetics, Evolution & Environment, University College London ; [2]Kohima, India; [3]Natural History Museum of London

c.oi@ucl.ac.uk

background

Traditional ecological knowledge (TEK) is important for people's livelihood

Nagaland Indigenous community semi-domesticated Asian hornets for food and it has a seasonal importance for their income

goal

Understand and catalogue TEK about hornet diversity, rearing and it is importance for their livelihood

methods

- *Semi- structured focus-group interviews of 15 villages Chakhesang and Angami communities in Nagaland, India*
- *Inductive approach to data analyses*

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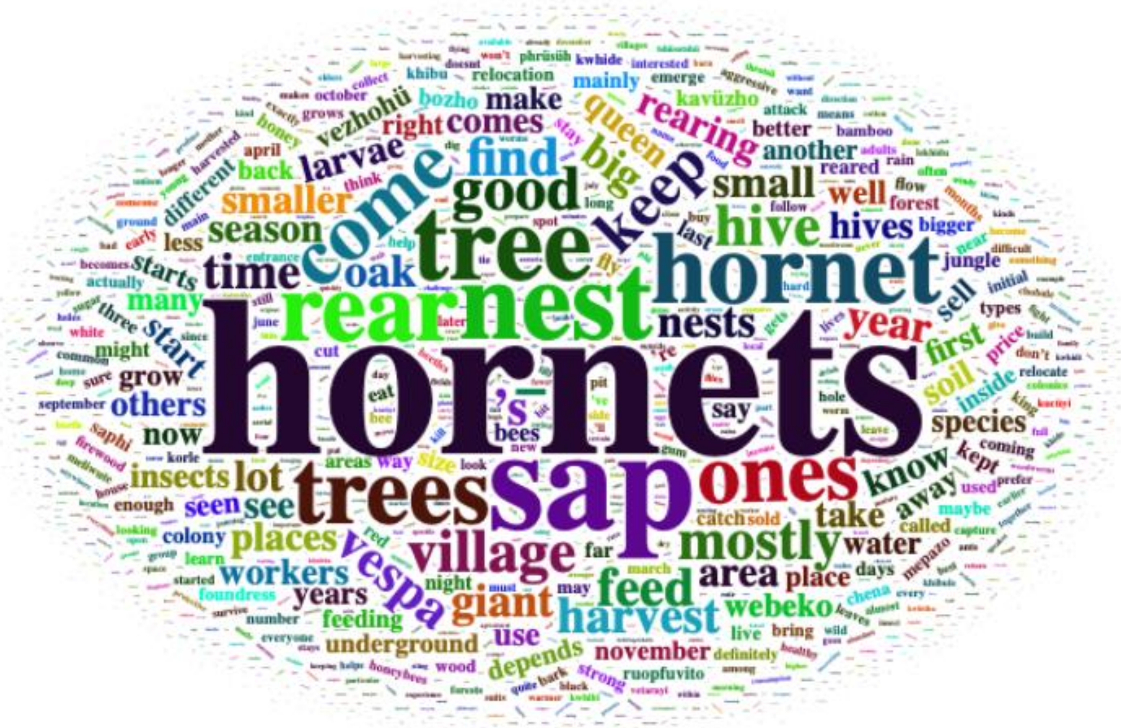
results

72 different common names for 10 hornet species

Information about activity patterns; seasonality; habitat preferences; rearing methods ; commercialization

Scientific name	(INR)	(GBP)
Vespa mandarinia	42500	365
Vespa affinis	5500	47
Vespa tropica	1250	11
Vespa analis	5428	47
Vespa bicolor	5000	43
Vespa basalis	7688	66
Vespa binghami	5100	44
Vespa velutina	6792	59
Vespa soror	148477	128
Vespa ducalis	20000	172



Quotations of the *rearing* methods

Guidemi: *"A pit is dug in the forest and soil is removed. The nest is installed into this. We don't put the soil back in so our nests mature faster than others. In this case, we have to excavate only if they have outgrown the cavity. That will also indicate to us that it's time to harvest."*

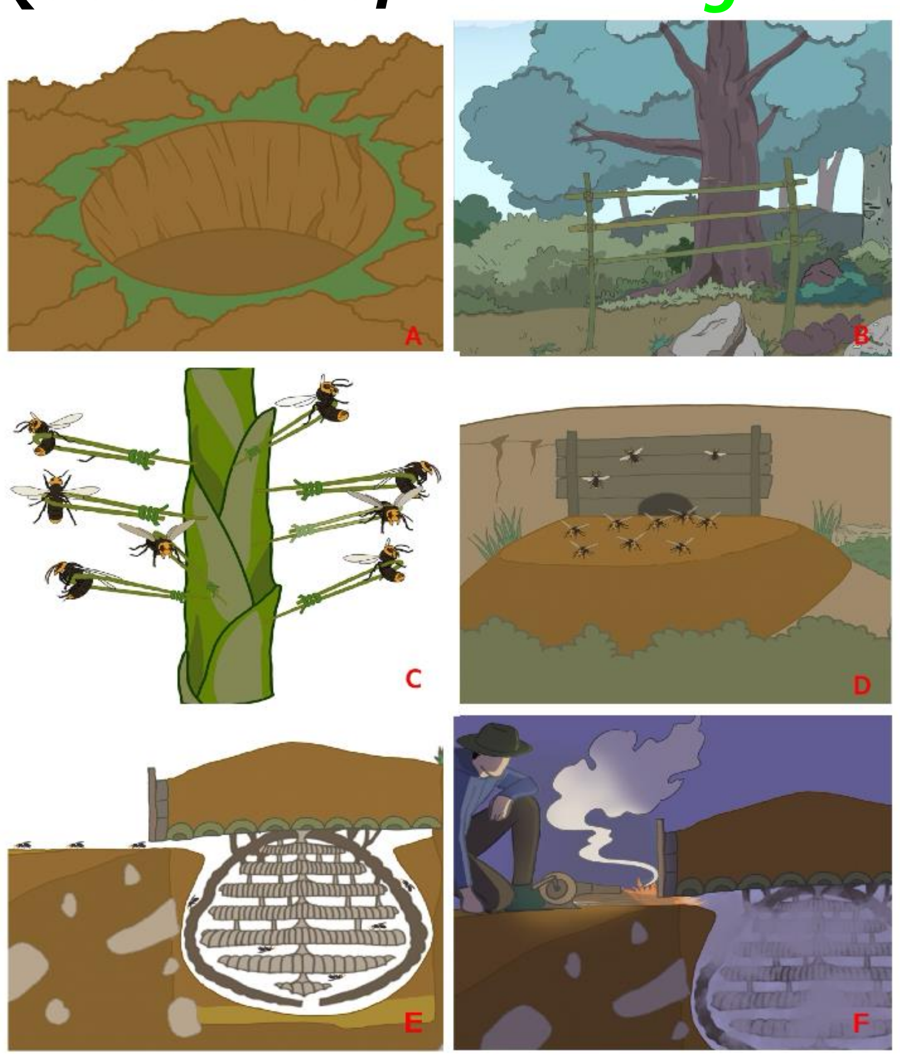
Kami: *"Yes, we claim it with bamboo twigs and a leaf ball attached to it this is kept near the initial hive so we remember where to come back."*

Botsa: *"So, we go at night, we dig and prepare bamboo with gum. We make a hole to catch the queen, we twist the bamboo to place her inside and keep it on a banana plant stem, then catch the next one. It takes a lot of time."*

Mima: *"The hornets will bring out the soil masticating it into small mud balls using their saliva and leave it outside the hive entrance. The amount of soil accumulated outside is an indicator of the growth of the colony."*

Botsa: *"Mostly in October and November. Like we said, we observe the hive, we sit near it and listen. When they're active, it makes a "Wwrrrrrrrrrrr" sound. If it's quiet, then it's not a good time. We listen to the sound to judge the timing."*

Lekromi: *"Usually by around September the hives are ready. We keep track of their strength and activity. Once they are strong enough and full of brood that is the right time."*



conclusion

Our findings reinforce the importance of TEK to improve knowledge about insect biology and provide support to sustainable local practices and conservation efforts.

@cintiaoi.bsky.social

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