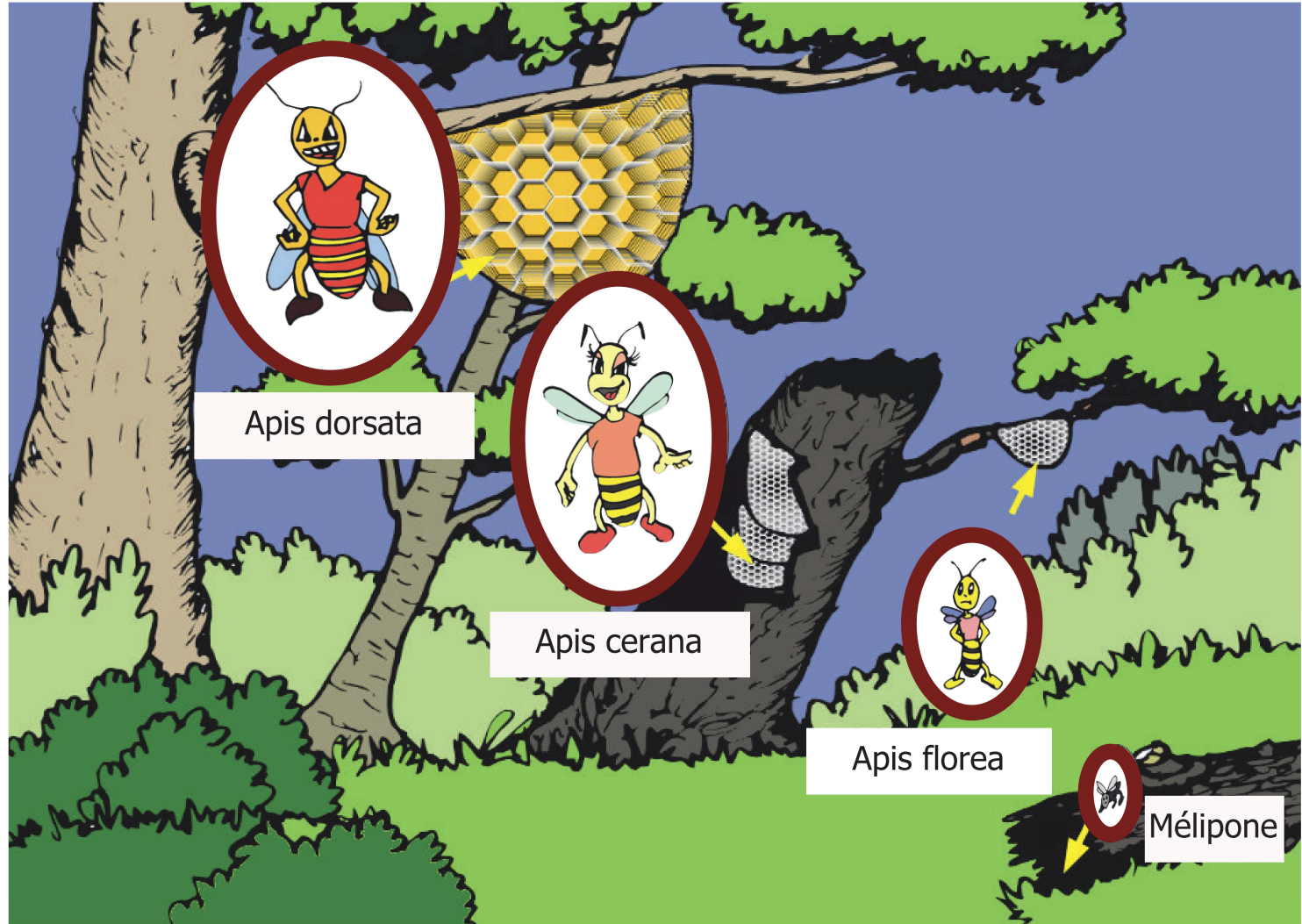


# Honey production in Laos



ການພັດທະນາແບບຍິນຍົງດ້ວຍການລ້ຽງເຜິ້ງຢູ່ບໍ່ເທດລາວ

DEVELOPPEMENT DURABLE PAR L'APICULTURE AU LAOS  
 SUSTAINABLE DEVELOPMENT THROUGH BEEKEEPING IN LAOS





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Preface Dr Sisaliao SAVENGSAKSA.....	1
Three species of <i>Apis</i> in Laos.....	2
Bees live in the forest.....	3
The bees can't be put in beehives.....	4
The <i>Apis cerana</i> can be put in a beehive.....	5
Bee anatomy.....	6
A swarm = A queen + workers.....	7
The workers' jobs.....	8
Parts of the bee body used as tools.....	9
Honey harvest: what must not be done.....	10
What must be done : put the swarm in a beehive.....	11
The Queen and the swarm live on the first floor.....	12
How far between an <i>Apis cerana</i> beehive and a house.....	13
Honey production does not require a lot of time.....	14
Honey harvest.....	15
Honey sale ( <i>Apis cerana</i> ).....	16
Beekeeping workshop : understanding and learning.....	17
Making a beehive for <i>Apis cerana</i> .....	18
Making a frame for Brood box - Hive bar for Hive body.....	19
Book realisation.....	20



# Preface



**Dr Sisaliao SAVENGSUKSA**

**President of the Association for Promotion of Rural Development**

First of all, I would like to congratulate Dynamic Actions for the realization of this booklet on honey production in Laos.

Although the book is small, it is quite an important one. It is a good tool to raise awareness among everyone, young or old, about the importance of bees in nature and for humans. Indeed, bees play a major role in nature for flower fertilization, and thanks to them, trees are able to produce fruits. Not only that, bees are like the thermometer of nature. Whenever bees proliferate, this means that nature is in good health, but when their number declines, this means that nature is in bad shape, whether from slash and burn or because of toxic chemicals having been poured out on plants. Moreover, bees are useful for human beings, for the nutritional quality of honey as well as for the great value of wax in the Lao tradition.



One of the qualities of the book it is easy to understand, the techniques proposed are quite simple, and it is full of very clear illustrations and scientifically accurate.

So it is quite an interesting book, easy to read with good advice easy to follow. I am convinced that it will be an asset to those who already raise bees, helping them to do it more professionally, and as well to those who are used to hunting for honey in the forest, giving them an incentive to start raising bees – as it is an activity where you can get income with virtually no investment or expenses.

I once again want to express my deep gratitude to Dynamic Actions for this initiative.

Vientiane, 2nd January, 2014





## Three species of Apis in Laos



*Apis dorsata* is an aggressive bee living in the forest.



*Apis cerana* is a small bee living in tree trunks.



*Apis florea* a very small bee living in the forest.





# Bees live in the forest



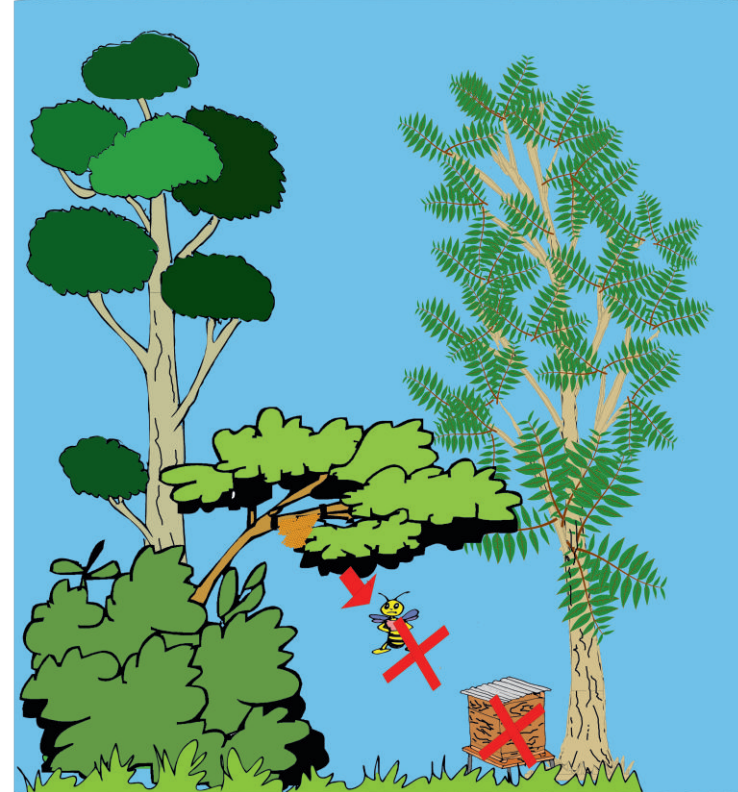
Bees also live near houses and even inside the houses



# These bees can't be put in beehives



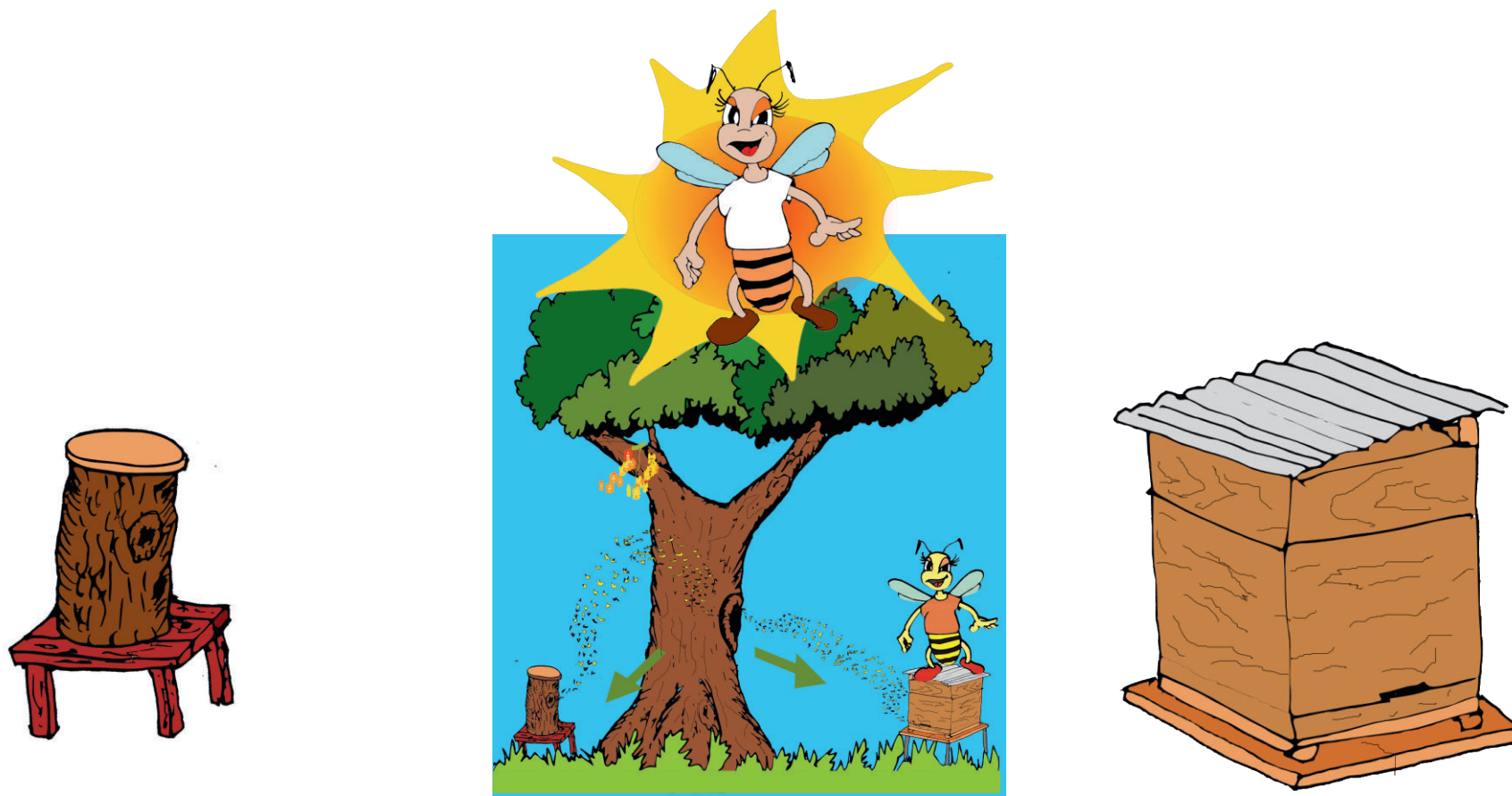
*Apis dorsata*



*Apis florea*



# Apis cerana can be put in a beehive

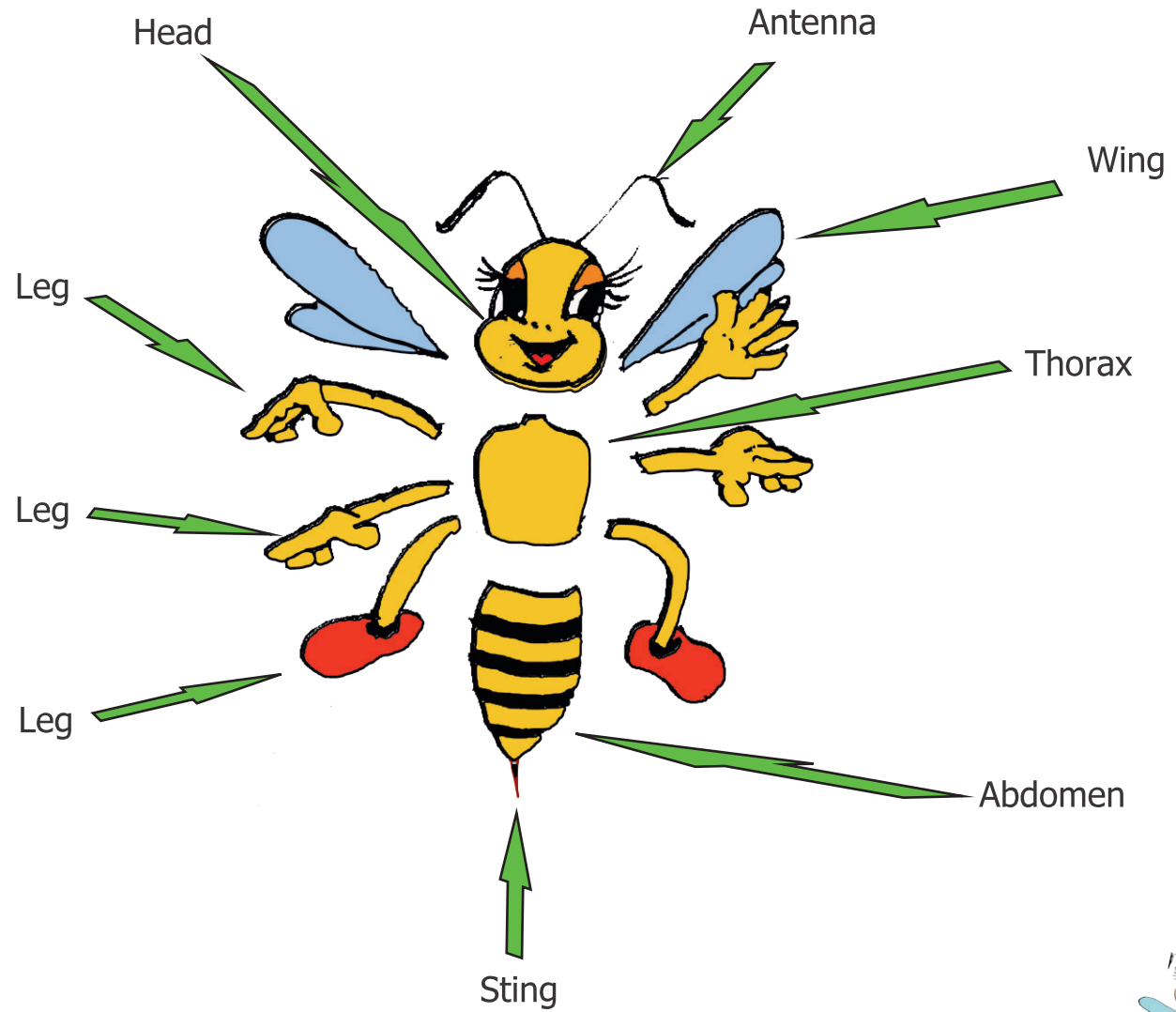


Apis cerana only can be nursed in a beehive giving good honey.

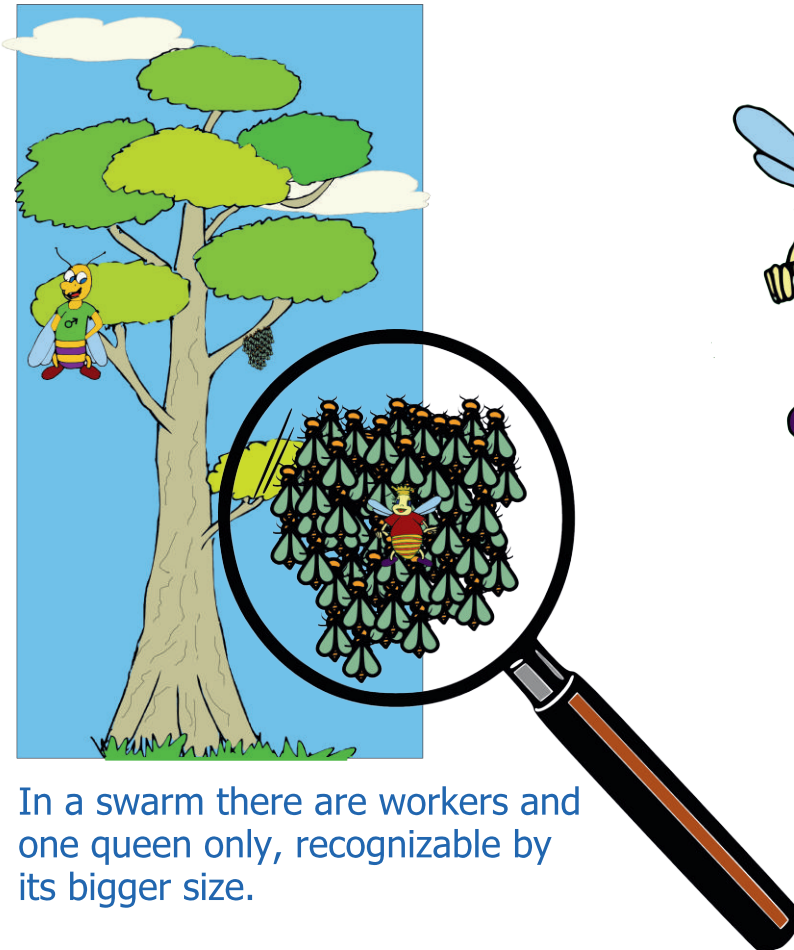




# Bee anatomy



# A swarm = A Queen + workers



In a swarm there are workers and one queen only, recognizable by its bigger size.



A Queen



The workers



# The workers' jobs



During its short life, a worker does several jobs first cleaning, then doing more dangerous jobs such as pollen collector or guardian.



Cleaner

Nurse

Architect

Mason

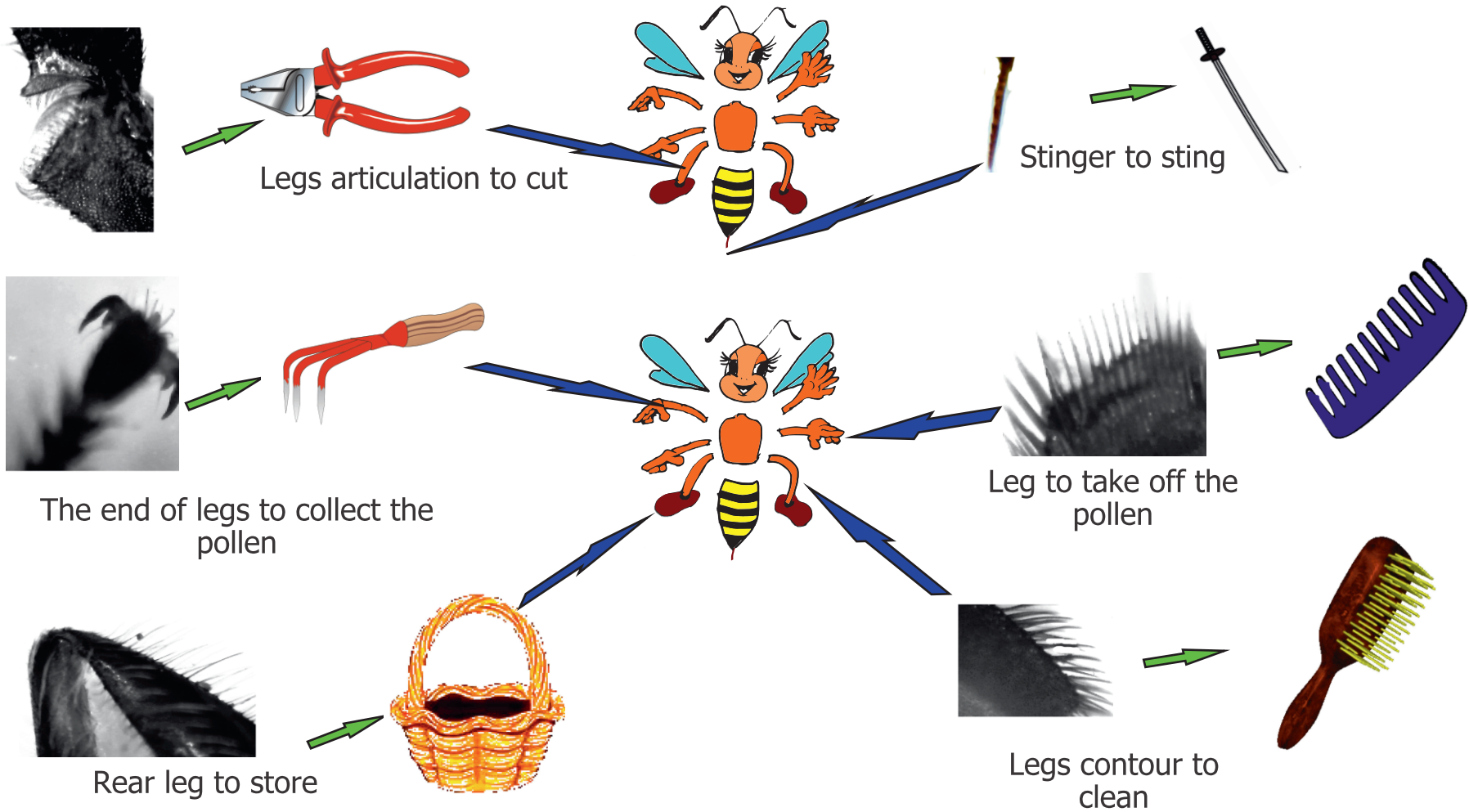
Pollen collector

Guardian

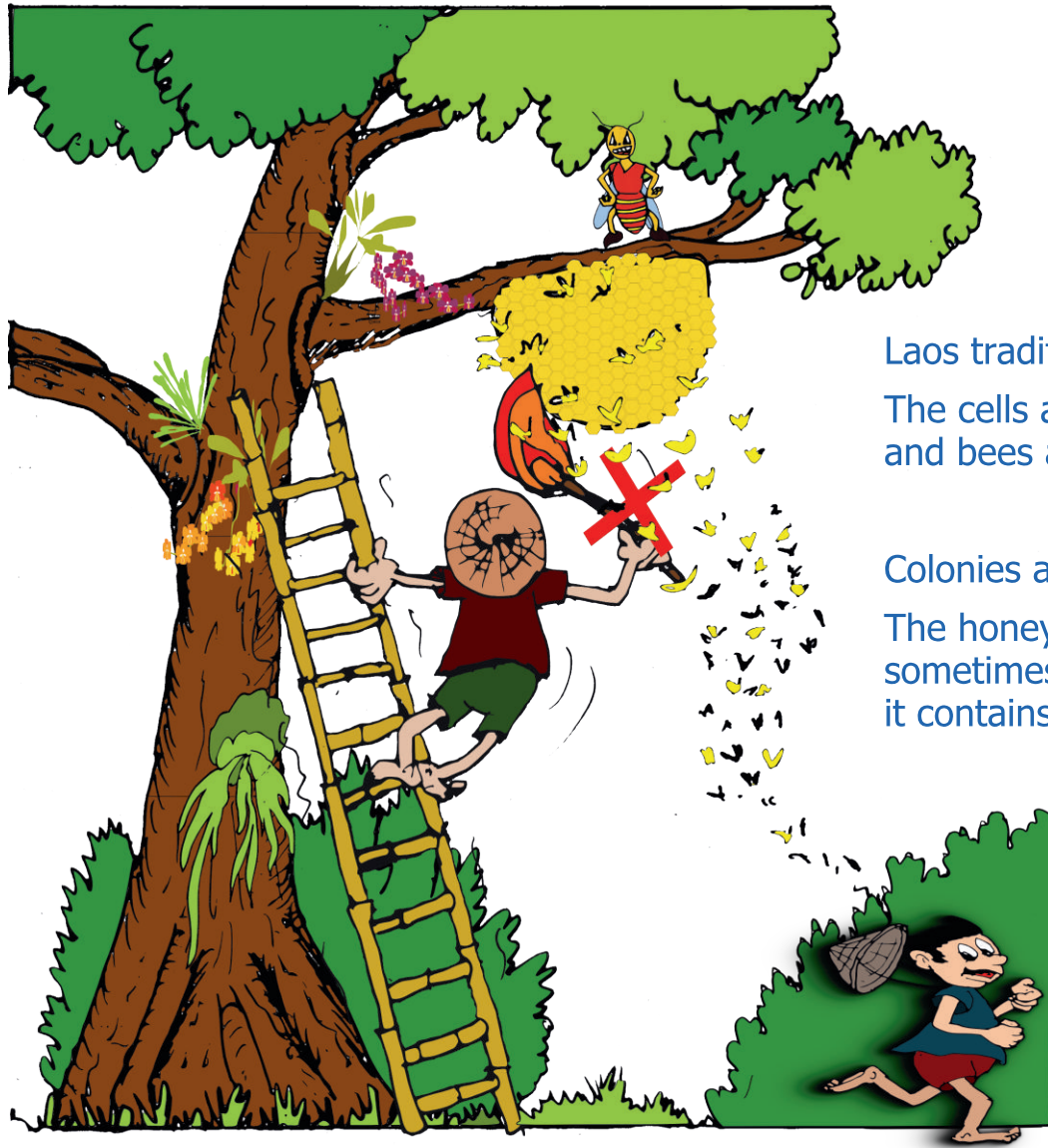




# Parts of the bee body used as tools



## Honey harvest: what must not be done



Laos tradition is burning the bees to collect honey.

The cells and their content, honey and eggs too, larvae, pupae and bees are crushed.

Colonies and swarms are thus ruined

The honey collected that way has a taste of burnt and sometimes of petrol. It is sour and ferments too fast because it contains too much water : more than 21%.



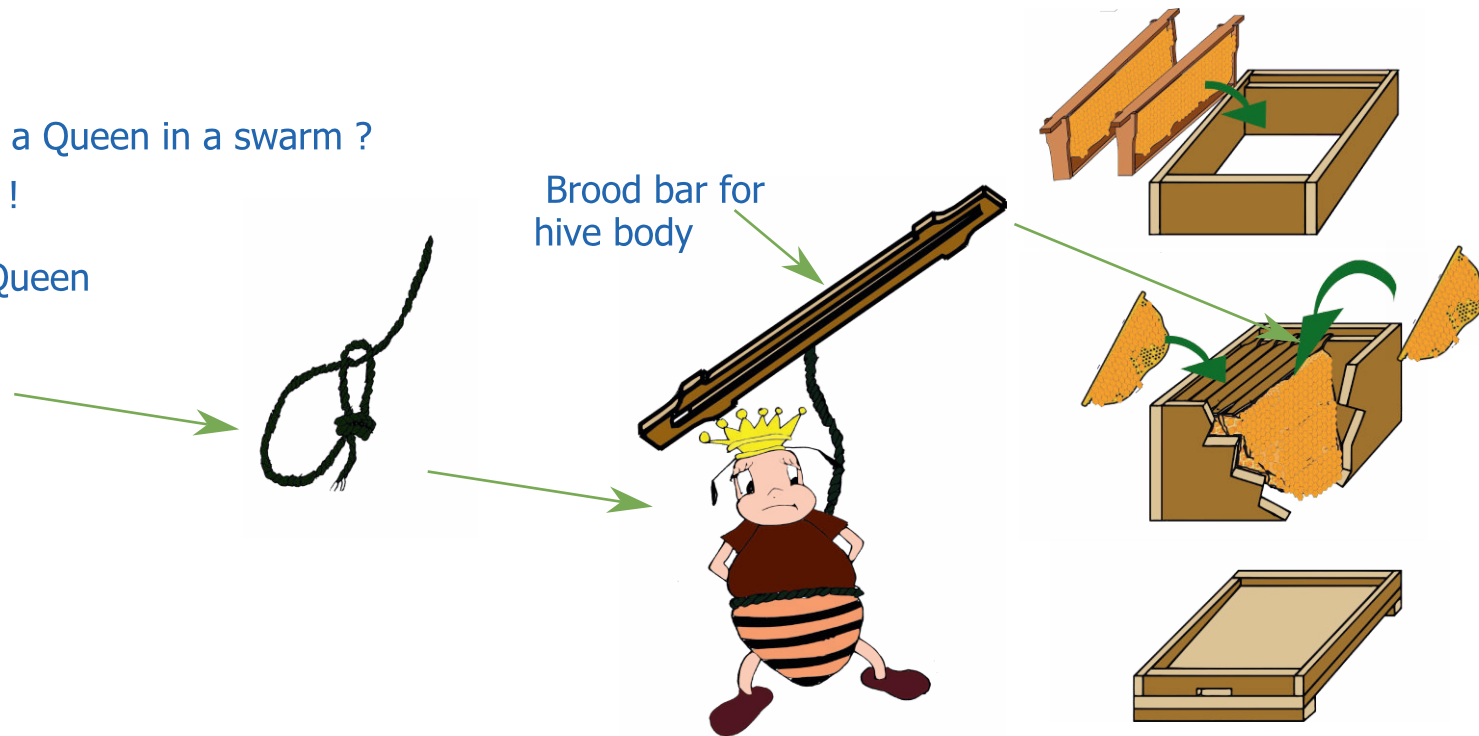
# What must be done first: put the swarm in a beehive



How can you catch a Queen in a swarm ?

- With your fingers !

knot to tie up the Queen



The Queen is delicately tied up with a flax yarn. To do that, you have to be under a mosquito net with the swarm. . Then you put the Queen and the swarm inside an empty beehive or a beehive without a queen..

**In a swarm, bees don't sting.**

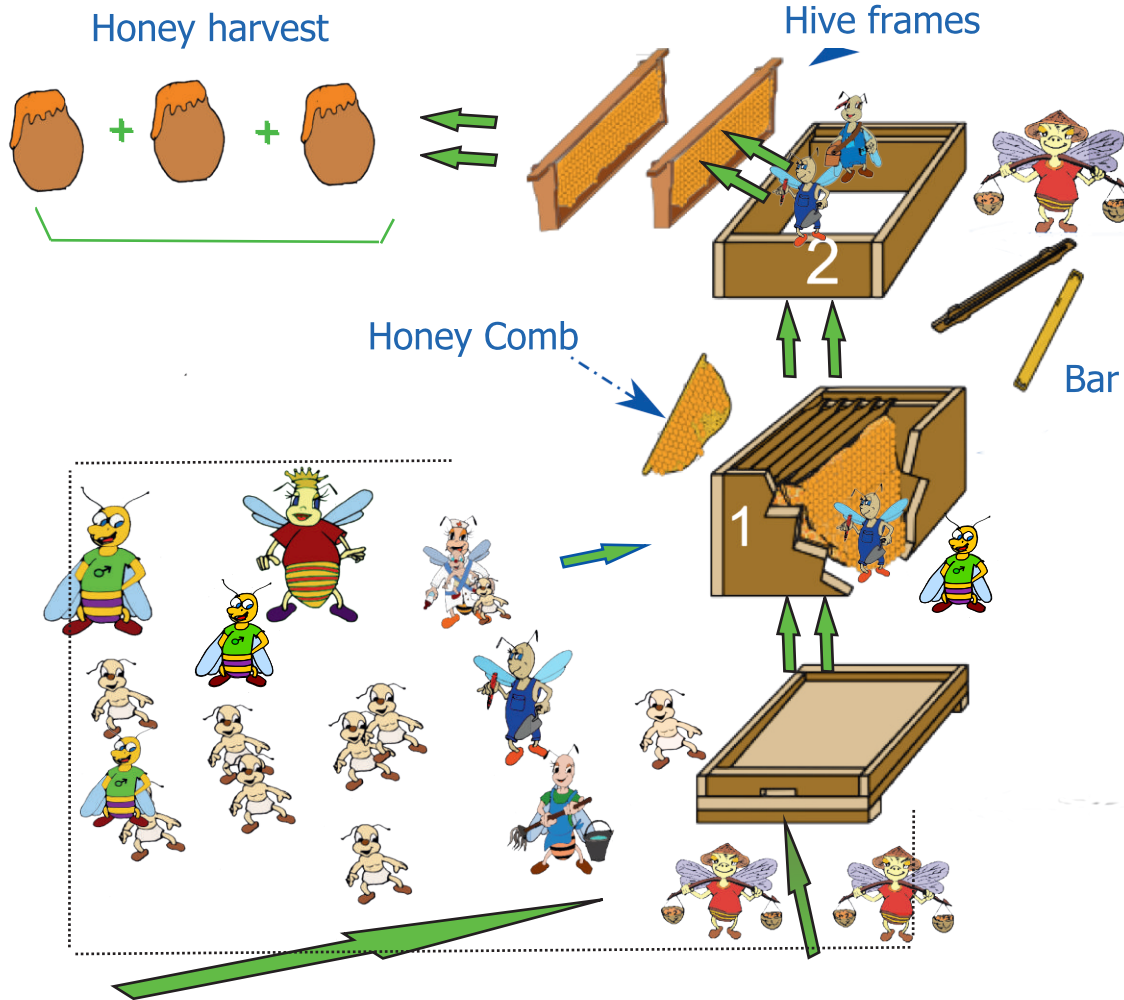




# Apis cerana beehive: the Queen and the swarm live on the first floor



Beehive = Brood floor + honey Production floor



## 2nd floor:

HONEY PRODUCTION in the box hive.

Frames are placed to the collect of honey.  
The cells only contain the honey which can be collected.

## 1st floor :

The BROOD in the brood box of the beehive.  
The queen, the males and the workers live there.  
There are combs. In the center they contain eggs, larvae and pupae.  
Around the larvae and the pupae, pollen and honey are stored.  
A few cells contain royal jelly.

## Bottom of the beehive:

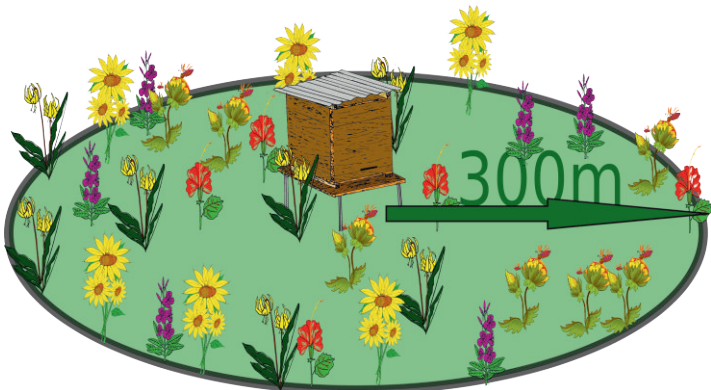
it is the entrance and the away out for bees.



# How far between a beehive and a house?

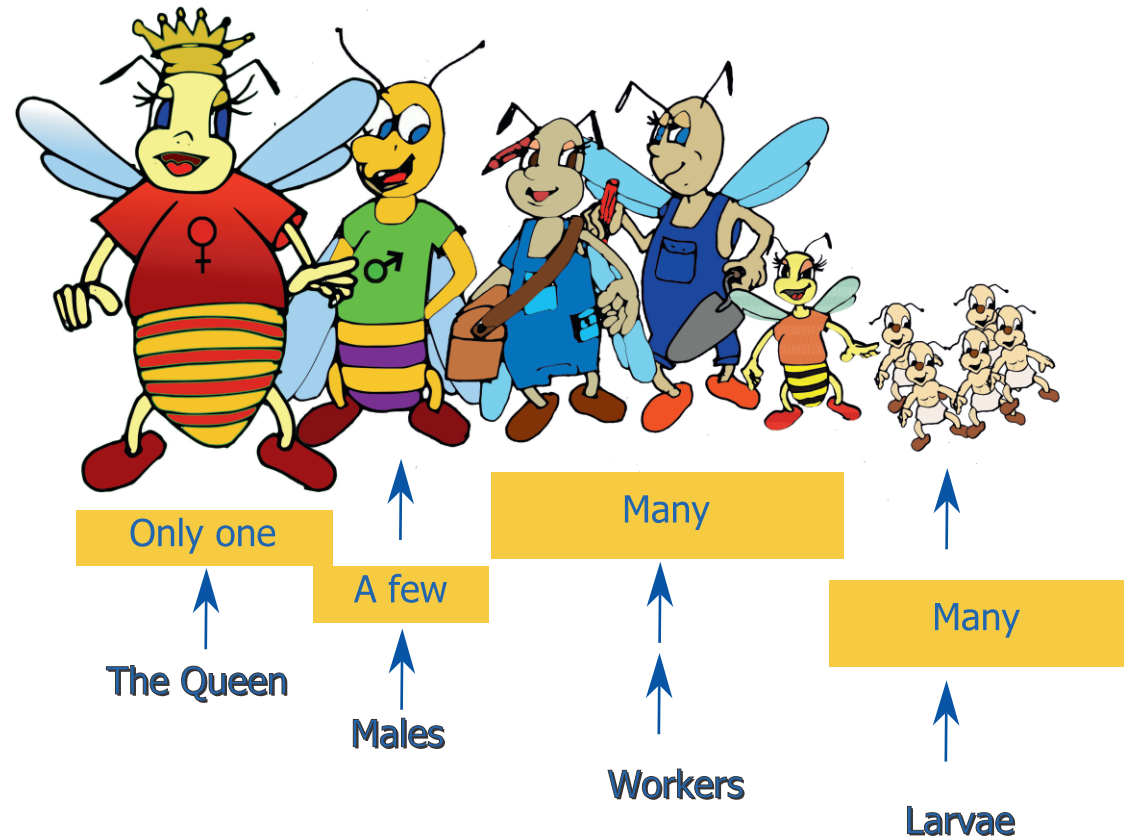


No distance! It can be put on a balcony.

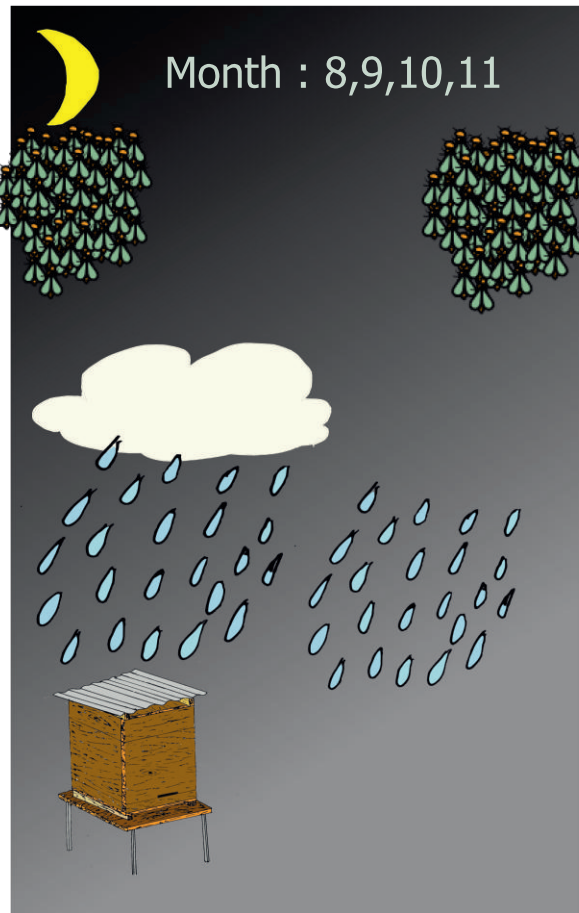


The bees (*Apis cerana*) go and find food only around 300 meters away from the beehive.

## Population in a beehive



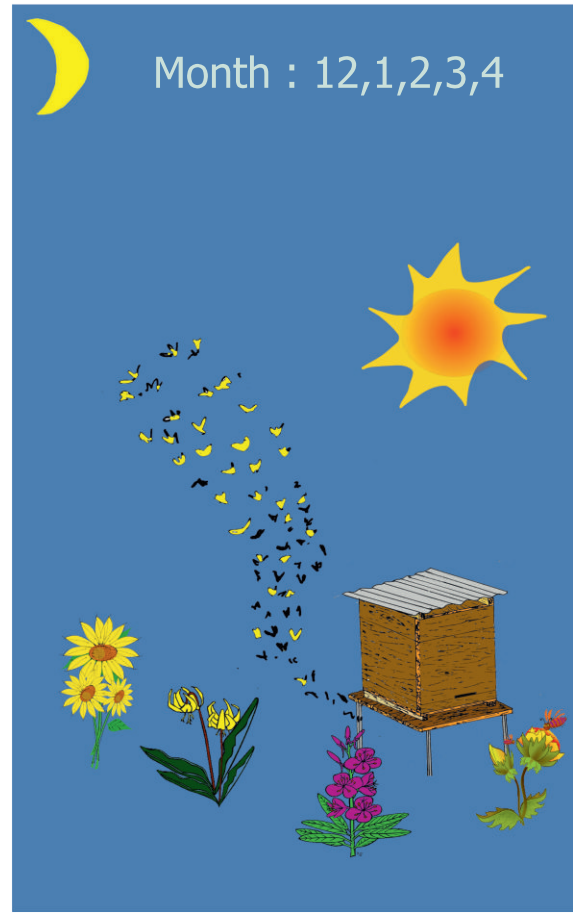
# Honey production requires little time



Month : 8,9,10,11

One day a month for one beehive

**COLLECT OF SWARMS**  
from August to October



Month : 12,1,2,3,4

One day a month for one beehive

**HONEY PRODUCTION I**  
from December to April



Month : 5,6,7

One day a month for one beehive

**COLLECTION OF HONEY**  
from May to July





# Honey collection



Only collect the frames on floor 2 which all have their capped cells. The honey there contains less than 21 % water.



With a knife, take out the caps. If the honey has more than 21% water it can't be kept because it will ferment.



With a pin, prick the bottom of each cell so that the honey might flow out (be sure you are somewhere inside so that the bees won't come, being attracted by the smell of honey).



# Sale of honey produced by a beehive (*Apis cerana* et *Apis dorsata*)



The honey from *Apis cerana* is better, it can be stored well and it tastes better than *Apis dorsata*'s. You can sell it a higher price. *Apis dorsata*'s honey can't be stored properly because it contains too much water. There are larvae and dead bees as well as eggs. It doesn't taste very good.



# Beekeeping workshop: understanding and learning beekeeping



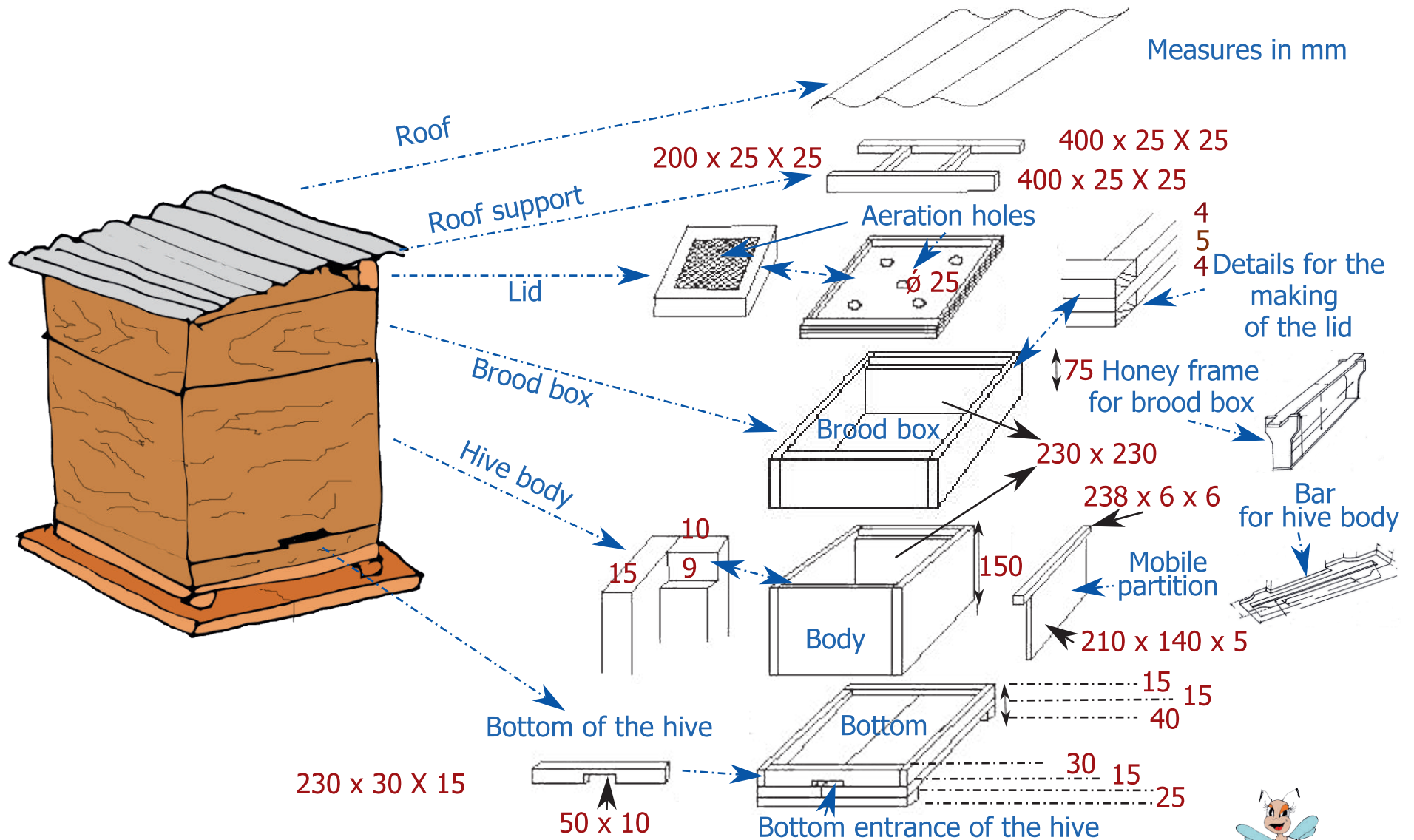
In a beekeeping workshop, people learn about the life of bees, how to organize a beehive, the way to look after a swarm.

Training and coaching are meant to ease honey production.



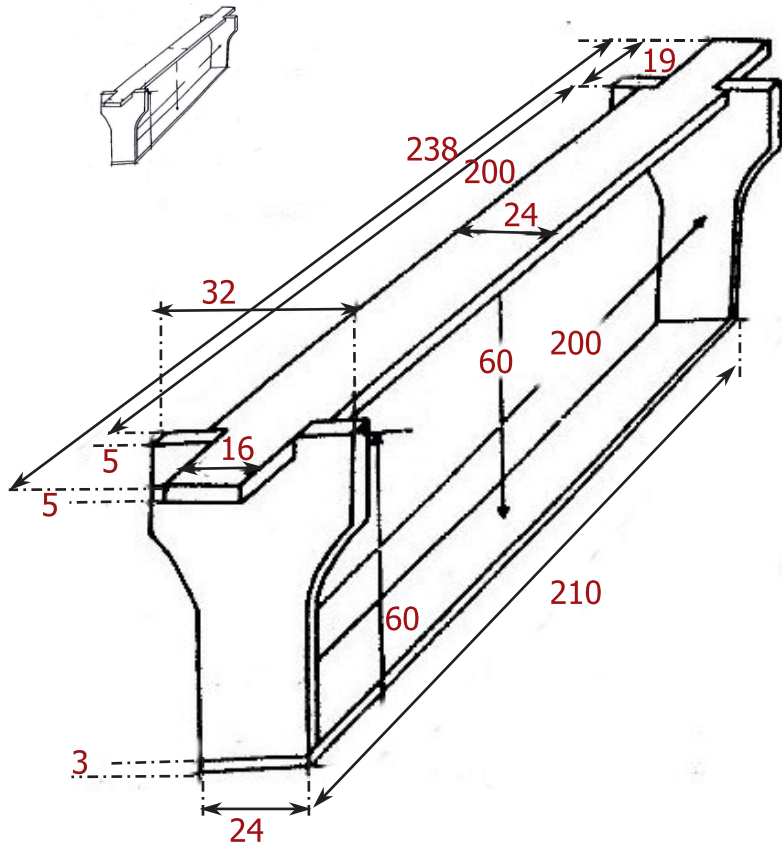


# Making of a hive for *Apis cerana*

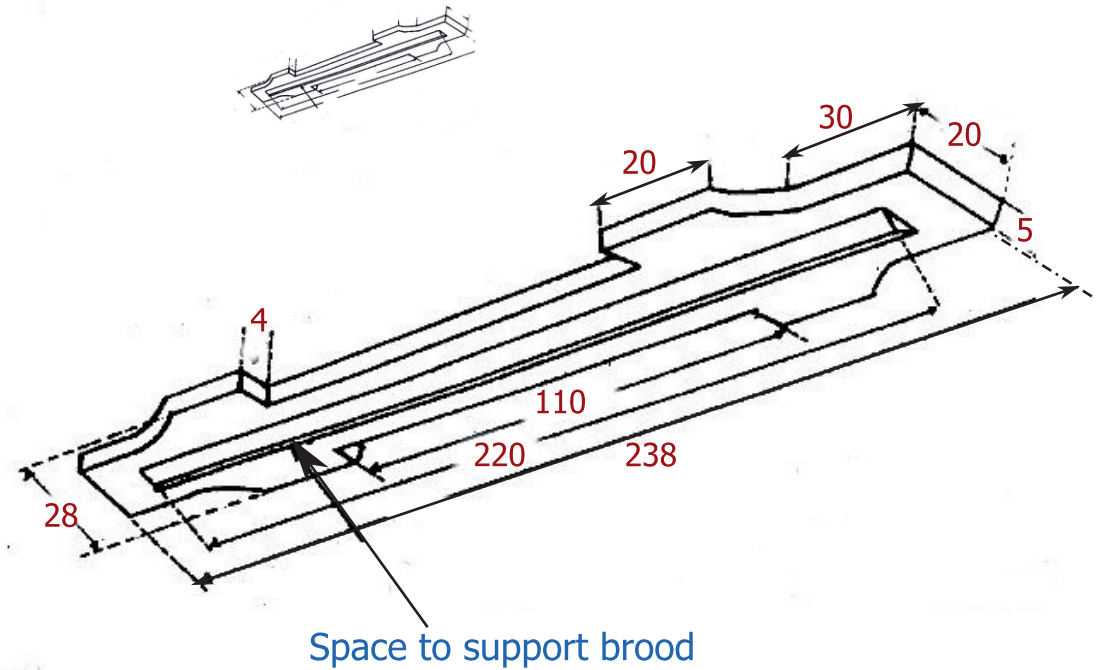




# Making a frame for Brood box - Hive bar for Hive body



Honey frame for brood box



Brood bar for hive body



# REASONED BEEKEEPING IN LAOS, with *Apis cerana*



The  
book is respectful of environment, ecosystem and biodiversity

**REALIZATION:** Dynamic Actions  
French Association  
Sustainable co-development in Laos

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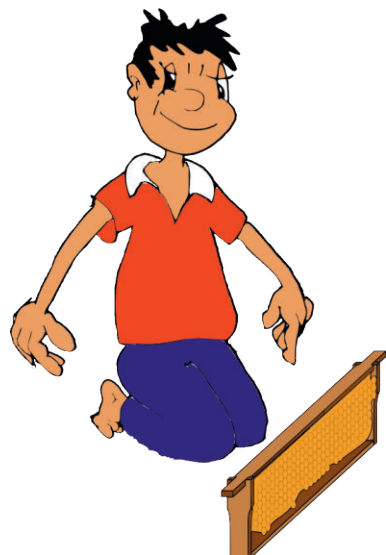
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Philippe AUREILLE



**THIS BOOK IS NOT TO BE SOLD**





Together with its partners in Laos , DA achieves and follows up co developing activities in order to cooperate in the education and development of sustainable local economy .

**For more information refer to their site : <http://actions-laos.org>**

**If you would like to help , you can send a gift to the association Dynamic Actions.  
It will be used for one of the projects on hand.**

To do so, please contact : [DynamicActions@gmail.com](mailto:DynamicActions@gmail.com).



## Why this book



ການພັດທະນາແບບຍືນຍົງດ້ວຍການລ້ຽງເຜິ້ງຢູ່ປະເທດລາວ

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One of the goals of the French association « Dynamic Actions » is to promote and help beekeeping .

The book aims at fostering a real interest in reasoned beekeeping ;it conveys a thorough knowledge thanks to simple text and pictures. It is to be given out free in the villages of Laos.

Indeed, high quality honey can be produced in Laos ,as in many other countries.

A swarm of Apis cerana may be put into a beehive, taken care of, then in due time honey can be collected, a pure honey without fermentation.Thus the life of the swarm is saved for a future collection of honey.

Reasoned beekeeping is totally riskless under simple rules.

It demands little work all the year round and allows the production of excellent Lao honey for families, friends and for sale .

Working on reasoned beekeeping requires the knowledge of a few pieces of information. The book offers , allowing anyone to get one or several beehives rather easily.

The association thanks those who have contributed freely to the realization of the project ,the « comité d Entreprise EDF « and other donors who helped paying for it..

The book is respectfull of environment,  
ecosystem and biodiversity.

Dynamic Actions :  
Sustainable co development in Laos

