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## **Traditional Animals Knowledge of Kerinci Community in Sumatera, Indonesia**

Asvic Helida<sup>a\*</sup>, Ervizal AM Zuhud<sup>b</sup>, Hardjanto<sup>c</sup>, Y. Purwanto<sup>d</sup>, Agus Hikmat<sup>e</sup>

<sup>a</sup> *Post Graduate School of Bogor Agricultural University, Campus IPB Darmaga,*

<sup>b,e</sup> *Department of Forest Conservation, Faculty of Forestry, Bogor Agricultural University, Campus IPB,*

<sup>c</sup> *Department of Forest Management Faculty of Forestry, Bogor Agricultural University, Campus IPB*

<sup>d</sup> *Indonesian Institute of Sciences (LIPI) Cibinong Science Centre, Cibinong*

<sup>a</sup>*Email: asvic\_helida@yahoo.com*

<sup>b</sup>*Email: eamzuhud@ipb.ac.id*

<sup>c</sup>*Email: hardjanto@gmail.com*

<sup>d</sup>*Email: purwanto.lipi.@gmail.com*

<sup>e</sup>*Email : ahikmat62@yahoo.com*

### **Abstract**

Kerinci community is one of the indigenous peoples living in Indonesia, Kerinci District, Jambi Province. They live around the forest and have interacted very long time, have knowledge of the various resources, especially wildlife utilization and management. This study aimed to reveal the knowledge community Kerinci toward wildlife resources that include perception, identification and utilization category. The study was conducted in Kerinci community in Dusun Baru Lempur, Dusun Lama Tamiai and Dusun Ulu Jernih which is a buffer zone of Kerinci National Park. The research method is done by an ethnographic approach that consists of field surveys, interviews and desk study. The results showed that people Kerinci already have a good knowledge of the resources represented by the identification of animals as much as 85 species consisting of 9 classes with some categories of utilization, especially for the fulfillment of food sources. The results also showed that there were wise utilization by the community so that the utilization of wildlife resources can be sustainably.

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\* Corresponding author.

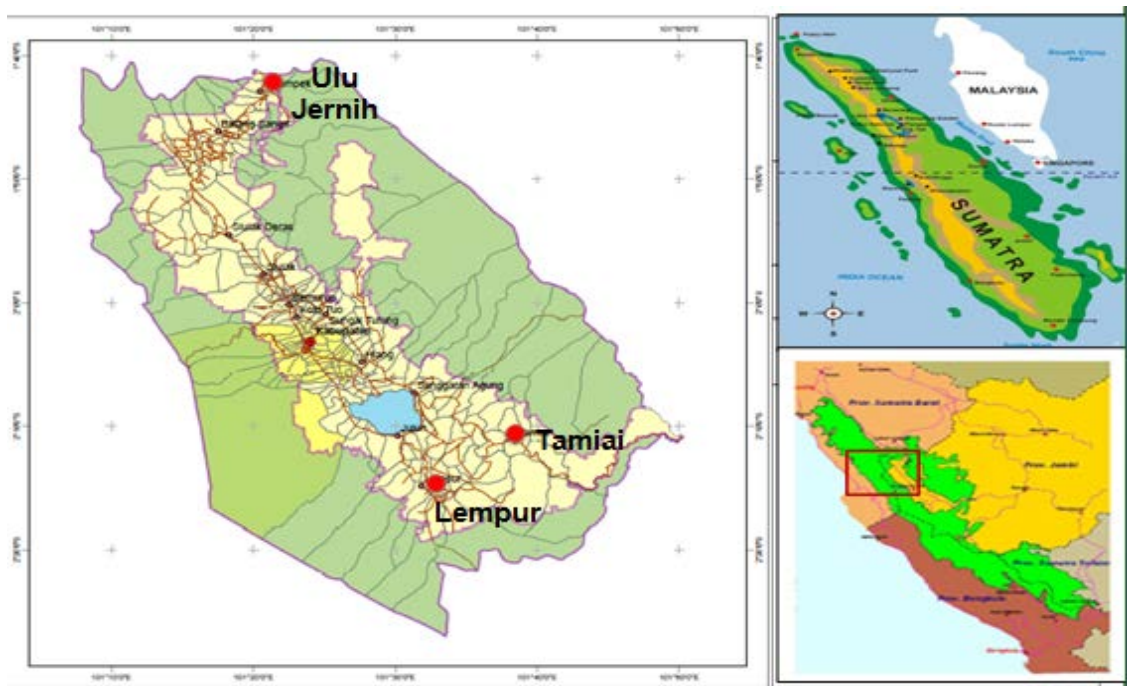
**Keywords:** etnozoology; Kerinci community; Kerinci Seblat National Park; ethnozoology knowledge.

## 1. Introduction

Ethnozoological is a subdisciplines of ethnobiological including the entire of local knowledge in a community (tribe or ethnicity) of the natural resources of animals include the identification, utilization, management and developments (cultivation / domestication) [1,2,3]. Etnozology owned by a group of people is small, unique, specific and compact are passed down from generation to generation. Etnozology reviewing existing relationships in the past to the present time between the animals in the surrounding community. More specifically etnozology can be distinguished on the basis of human interaction with the animal species; insects (etnoentomology), birds (etnoornitology), amphibians (etnoherpetology), fish (etnoikhtology) [4]. Under these conditions, which is the goal of this study is to describe Kerinci community knowledge of animals that include perceptions / views, identification and utilization category and describe the type of interrelation between the community and the diversity of the animal through the biological and social aspects in terms of conservation practices.

## 2. Methods

The field research was conducted in two months from March to May 2014. The study was conducted in communities in the buffer zone of Kerinci Kerinci National Park are Dusun Baru Lempur Kecamatan Gunung Raya, Dusun Lama Tamiai District of Batang Merangin and Dusun Ulu Jernih, district of Gunung Tujuh (Figure 1). The three locations were selected purposively as a village directly adjacent to the Kerinci National Park that different geomorphological aspects (Table 1).



**Figure 1 :** Site Research

**Table 1:** Biophysical characteristics of the study site

Biophysical aspect	Gunung Tujuh District	Batang District	Merangin	Gunung District	Raya
Geomorphology	Hilly and mountain	The hills to the valley floor that is flat and sloping		Lowland and hilly	
Altitude (m.a.s.l)	>1000	500 – 1000		100 - ≥ 1000	
Rainfall mm/year)	1500 – 2000	≤ 1500 mm/year		2000 – 5000 mm/year	
Type of soil	Andosol, latosol	Andosol, latosol, podsolic, alluvial		Andosol, latosol, podsolic, litosol	
Type of griculture	The main agricultural cultivation of vegetables and agroforestry cinnamon, wetland limited	The main agricultural land paddy rice fields in the hills limited.		The main agricultural crops and fields cinnamon especially monoculture and slightly agroforestry	
Type of geomorphology	Kayu Aro highland	Valley Kerinci		Lolo- Lempur area	

(Source: [6])

The research uses an ethnographic approach as the form of surveys, interviews and literature studies. Exploratory survey includes an inventory of wildlife species that are known by the people of Kerinci include local names, scientific names and categories of use, (2). Studying the interrelation between people and their environment (ecosystem), meaning we pay attention to and discuss the biological and social aspects with regard aspects of practice, perception and representation [5].

Ethnozoological the data obtained through the study of documentation and interviews with informants were analyzed qualitatively through the stages of data collection, transcription of data, categorization of data, temporary inference, triangulation and the final conclusion which is then presented in the form of a descriptive narrative. Data analysis was carried out in the field according to the context or situation that occurred at the time the data were collected [7,8,9]. In the early stages of data analysis done by building a matrix of the data used as the basis of analysis to the purpose of grouping; grouping the types of animals based classes (mammals, reptiles, aves, pisces, ampibhi, molluscs and vermes), grouping by categories and category utilization status (animals / livestock).

### 3. Results and Discussion

#### Perception and Motivation toward Animal Community Kerinci

The indigenous people who inhabit the region Kerinci Kerinci district is one of the local Indonesian community that has its own uniqueness in the order of life. Kerinci community has a good knowledge of the system to the

natural resources in their environment. Refernces [10,11] states that these resources in order to be sustainable if the community perception that often have specific issues and places can be integrated into the adaptive management strategy to guarantee the existence of community participation. Kerinci community have the view that the various species that exist on Earth are as God's creation, which has a life of its own and a place. Human beings are equipped to make sense of the existence of various types of animals for their livelihood.

In general, the people Kerinci classifying animals on livestock, pets and wild animals. According to the Kerinci cattle are animals that are kept and has cultivated or managed by giving special treatment according to the nature and characteristics of the animals such as chickens, goats, ducks, cows and buffalo. Animals are all animals that exist around them either already used or not used, while wild animals are animals that live in the forest and wild as tigers, bears and gibbons. Although one of the factors causing the enactment of the Kerinci National Park area is due to the reduced population of Sumatran tiger (*Phantera sumatraensis tigris*) and the Sumatran rhinoceros (*Rhinocerus sumatraensis*), but not as good as the knowledge community Kerinci knowledge to resources tumbuhannya. It naturally happened because given the Kerinci community is engaged in the agricultural sector.

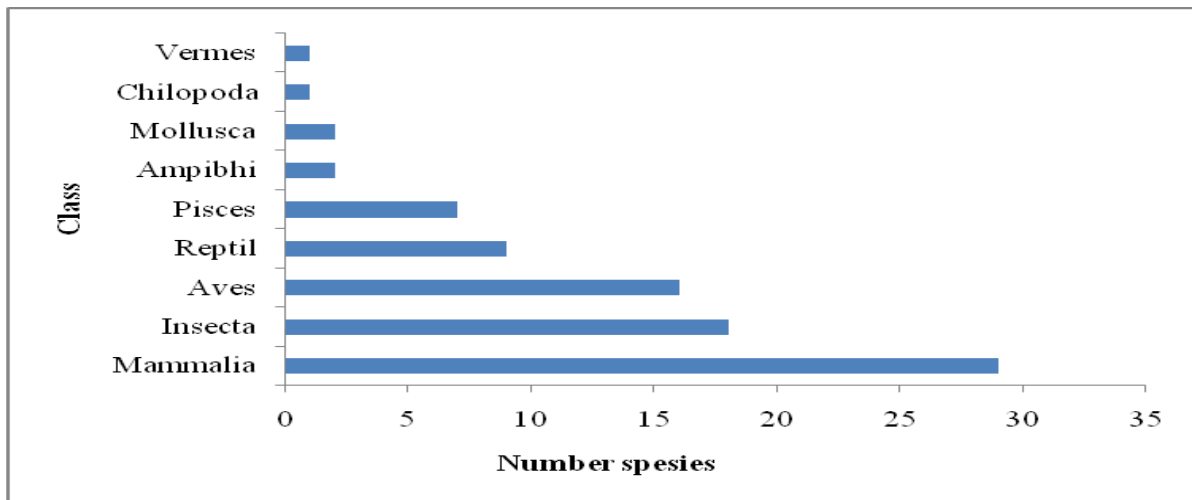
#### Knowledge Community Animal Diversity Type Kerinci

Kerinci people's knowledge of the diversity of species need to be known to reveal the role of wildlife resources as community life support Kerinci. Kerinci community is looking at various types of animals as part of a natural resource that can be utilized to meet the needs of human life. A species is used or not depends on each individual. As a community of farmers, Kerinci people familiar with the various types of animals related to agricultural activities and animals that are around them live.

In interacting with the animals, the people Kerinci already characterize the interaction of mutually beneficial (symbiotic mutualism), adverse interactions (parasitism) and the interaction of the benefits while the other does not feel disadvantaged (symbiosis comensalisme). This becomes an important cornerstone in the implementation of natural harmony and preserve the ecosystem. Therefore, humans have a high responsibility for the maintenance of good animal survival of wildlife or domesticated animals. Reference [12] states that the utilization of wildlife resources can sustain life.

Based on observations recorded as many as 85 species known to Kerinci community consists of a special type that have utility for the people and species that are wild or have not disclosed their usefulness to community. Most of these animals are still wild nature (79%) while the newly cultivated as much as 21%. By grouping the taxonomy of the types of animals are classified into 9 classes of mammals (animals breastfeeding), insects (insects), Aves (birds / poultry), reptiles (animals that crawl), Pisces (fishes), ampibhi (animals living in two worlds), molluscs (soft-bodied animals), centipede (animal berbuku) and Vermes (worms) (Figure 2).

Figure 2 shows that mostly the class has a number of species of mammals is 29 types. Followed by insects (18 species), aves (16 species), reptiles (9 types), Pisces (7 types), ampibhi and molluscs (2 types) and the lowest vermes and centipede each one kind.



**Figure 2 :** Number species based on taxonomy class

#### Mamalia Class

Based on information in the field, the types of species of mammals are the type most widely known by the community Kerinci are 29 species, particularly large mammals' body size. These varieties consists of five types that have been cultivated and 24 species that are wild (Table 2).

Table 2 shows that 5 species of these mammals class status in the process of cultivation means developments have been treated by humans. While 24 other species is still illegal means to live in the wild and in the process developments take place naturally. The types that have been cultivated species that are useful for the purposes of food sources, both for their own consumption or for sale. The kinds of mammals that have been cultivated for economic value (for a food source and commercial) is a goat (*Capricarnus sumatraensis*), hare (*Lepus negricollis*), buffalo (*Bubalus bubalis*), banteng (*Bos sundaicus*) and sheep (*Ovis aries*). Buffalo (*Bubalus bubalis*) is used for animal towing a plow working the fields than the purposes of food sources, buffalo meat is less preferred by the people Kerinci as 'hot' and have tougher meat compared to beef. But the role of the buffalo as towing a plow has been largely supplanted by using tractor engine hijacker's fields. This is done because the community assumes the use of tractors is more effective and more efficient than using buffalo, so that gradually the presence of buffalo also began to decrease.

The wildlife species have already utilized such as macaques (*Macaca nemestrina*), dijinakan then trained to become a wildlife worker is to pluck coconuts from the trunk; dogs (*Canis familiaris*) is used as the animals for hunting and guard house / fields; horse (*Equus cabalum*) used as wildlife workers to pull 'gig' (= carriage) and there were not utilized / used but known by the community are the kinds of mammals that live in the forest like tigers, bears, elephants, orangutans and so on , Kerinci community considers several species of mammals as a pest or nuisance animal agriculture because it is disturbing farming and taking agricultural produce such as wild boar (*Sus scrofa*), monkey (*Macaca fascicularis*) and rat (*Rattus sp*). According to information in the field population of the three species have been abundant while diminishing habitat. To overcome this animal nuisance Kerinci community has made efforts to control among others by hunting. Hunting is done jointly and

periodically, especially before harvest. For this type of bat Kerinci people know that these animals are useful as insect predators so it is important as an agricultural pest insect control, while known as the fruit-eating bat so it can be an agent spreaders of seeds and pollinate. This bat can expand distribution of growing forest trees such as durian (*Durio zibethinus*), because dropping the seeds of fruit they eat away from the parent tree fruit plucked

**Table 2:** Mammals species and status

Local name	Scientific name	Status
Kambing	<i>Capricarnus sumatraensis</i>	C
Kelinci	<i>Lepus negricollis</i>	C
Kabau	<i>Bubalus bubalis</i>	C
Sapi	<i>Bos sundaicus</i>	C
Domba	<i>Ovis aries</i>	C
Anjing	<i>Canis familiaris</i>	W
Babi hutan	<i>Sus scrofa</i>	W
Beruang	<i>Helarctos malayanus</i>	W
Beruk	<i>Macaca nemestrina</i>	W
Gajah	<i>Elephant maximus</i>	W
Harimau	<i>Phantera tigris</i>	W
Kancil	<i>Tragulus javanicus</i>	W
Kelelawar	<i>Pteropus sp</i>	W
Keluang	<i>Eonycteris spelaea</i>	W
Kijang	<i>Muntiacus muntjak</i>	W
Kubung	<i>Cynocephalus variegatus</i>	W
Kucing	<i>Felix domestica</i>	W
Kuda	<i>Equus cabalum</i>	W
Kukang	<i>Nycticebus coucang</i>	W
Landak	<i>Hystrix sp</i>	W
Mencit	<i>Mus musculus</i>	W
Monyet	<i>Macaca fascicularis</i>	W
Musang	<i>Paradoxurus hermaphroditus</i>	W
Orang utan	<i>Pongo pygmeus</i>	W
Rusa	<i>Cervus unicolor</i>	W
Siamang	<i>Hylobates syndactillus</i>	W
Simpai	<i>Presbytis melalophos</i>	W
Tikus	<i>Rattus argentivente</i>	W
Tupai	<i>Tupaia tanaa</i>	W

Notes : C = cultivation. W = wild

Based on exploration in the field note that in identifying species, Kerinci community has been able to identify

and understand the types of animals to see the footprints of animals or other signs left by animals such as bite marks, distinctive smell of animals, dirt and so on.

#### Insect Class

The next number of species are widely known by the community Kerinci at the study site are insects (insects) as many as 18 species (Table 3).

**Tabel 3:** Insect Class and status

Local Name	Scientific Name	Status
Capung	<i>Neurothemis sp</i>	Wild
Kaki seribu	<i>Trigoniulus corallinus</i>	Wild
Kalajengking	<i>Heterometrus spinifer</i>	Wild
Kecoa	<i>Periplaneta americana</i>	Wild
Kunang-kunang	<i>Photuris lucicrescens</i>	Wild
Kupu-kupu	<i>Delias fruhstorferi</i>	Wild
Lalat	<i>Musca domestica</i>	Wild
Lipan	<i>Scelopendra morsitans</i>	Wild
Jangkrik	<i>Gryllus assimilis</i>	Wild
Nyamuk	<i>Order Diptera</i>	Wild
Kelabang	<i>Scolopendra morsitans</i>	Wild
Semut api	<i>Paraponera clavata</i>	Wild
Semut hitam	<i>Lasius fuliginosus</i>	Wild
Semut merah	<i>Formica Ruva</i>	Wild
Tawon	<i>Xylocopa latipes</i>	Wild
Ulat bulu	<i>Macrothylacia rubi</i>	Wild
Ulat tanah	<i>Agrotis ipsilon</i>	Wild
Undur-undur	<i>Myrmeleon sp</i>	Wild

Table 3 shows that all kinds of insects are known by the community Kerinci illegal status are living in nature and are not cultivated. Knowledge of these species is merely to identify the type, nature and benefits in habitats where the animals live. Community is not interested in knowing more concerned with the efforts of developers . Kerinci community know dragonfly (*Neurothemis sp*) as animals that can control mosquito populations, if the dragonfly population increased to reduce the mosquito population. Dragonflies are predators that live animals is widespread in forests, fields, fields, rivers, lakes and to the community yard. As a predator dragonfly important role in maintaining the balance of the ecosystem, especially in the agricultural world because he ate annoying pests like aphids and leafhoppers. Besides as a biological control for other species, dragonflies also can be used as bio-indicators of the environment. Dragonflies lay their eggs in the water and then into nymphs (insects that live in the water), dragonfly nymphs is very sensitive to water pollution, thus helping us to mark the springs are still good or has been contaminated.

Insects or insect diversity and abundance is high, can reproduce in very large numbers and in some types of anyone able to produce several generations in one year. Insects have a niche of high life, can be found in almost any environment even though only a small number who may live in the ocean. More than 800,000 insects have been found, there are 5000 species of dragonflies, 20,000 types of grasshoppers, 170,000 species of butterflies and moths, 120,000 species of flies and their relatives, and 110,000 species of ants and bees.

#### Aves Class

The research showed the number of types of classes' aves (birds) as many as 16 species that comprise 6 types of cultivation and 10 species of wildlife (Table 4).

Table 4 shows that the species that have been cultivated community Kerinci are the types that are useful for sources of food (animal protein), such as free-range chicken / chicken instead of race (*Gallus domesticus*), chicken (*Gallus gallus bankiva*), duck (*Anas moscha*), ducks (*Anas sp*) and wild duck (*Anas versicolor*). This type is usually managed by the community as well an extra effort to meet their own needs or for sale. Exploitation aves kind of cultivation is usually done around the settlement they live. While the types that are wild aves such as various species of birds; hornbills, owls, magpies, sparrows, sparrows, crows and hawks not so much known by the community except as game animals that can be obtained from the forest. Special eagle bird of prey known as the type of chicks who like to eat their livestock, while crows are known as scavengers.

**Table 4:** Aves Class and status

Local Name	Scientific Name	Status
Angso	<i>Cygnus cygnus</i>	C
Ayam buras	<i>Gallus domesticus</i>	C
Ayam hutan	<i>Galus various</i>	W
Ayam kampung	<i>Gallus gallus bankiva</i>	C
Bebek	<i>Anas moscha</i>	W
Burung tekukur	<i>Streptopelia chinensis</i>	C
Burung srigunting	<i>Dicrurus leucophaesus</i>	W
Burung elang	<i>Accipitridae</i>	W
Burung gagak	<i>Corvus sp</i>	W
Burung gereja	<i>Passer domesticus</i>	W
Burung hantu	<i>Otus magicus</i>	W
Burung murai	<i>Copsychus malabaricus</i>	W
Burung pipit	<i>Lonchura punctulata</i>	W
Burung rangkong	<i>Bucerottidae</i>	W
Itik	<i>Anas sp</i>	C
Itik serati/entok	<i>Anas versicolor</i>	C

(Notes : W = wild, C = cultivation)



## Reptile Class

Reptiles are cold-blooded vertebrate animals and have scales that cover his body. The results showed that the types of reptiles are known by the community Kerinci are the types who live around them, even though they do not take advantage of these kinds of animals, but people know his name and assume that these animals are part of nature to live with same with humans. Kerinci community is the principle of 'do not interfere so as not to be disturbed ", as presented by traditional leaders. Kerinci community understand the different types of reptiles as part of nature that can be exploited by humans. The types of reptiles known as insectivorous and maintain the balance of the population of other animals such as snakes are endangered rat eater, can control the rat population. Reduced populations of snakes cause an increase in the rat population to become pests. Based on field data obtained as many as nine species belonging to the class of reptiles and all wild status (Table 5).

**Table 5:** Reptile species and status

Nama lokal	Nama Latin	Status
Biawak	<i>Varanus nebulosus</i>	Wild
Buaya sungai	<i>Crocodylus acutus</i>	Wild
Cicak	<i>Cosymbotus platyurus</i>	Wild
Mengkarung/kadal	<i>Mabacuya sp</i>	Wild
Tokek	<i>Gekko gekko</i>	Wild
Trenggiling	<i>Manis javanicus</i>	Wild
Ular sawah (sanca)	<i>Phyton reticulatus</i>	Wild
Ular daun	<i>Ahaetulla sp</i>	Wild
Ular tanah	<i>Calloselasma rhodostoma</i>	Wild

## Pisces Class

Based on observations and information in the field recorded seven species pisces class that has been cultivated by the community (Table 6).

**Table 6:** Pisces Class Use by Kerinci Community

Local Name	Latin Name	Status
Ikan sepat	<i>Trichogaster trichopterus</i>	C
Ikan gurame	<i>Osphronemus goramy</i>	C
Ikan lele	<i>Dlarias batrachus</i>	C
Ikan mas	<i>Cyirinus carpio</i>	C
Ikan mujair	<i>Areochrmis mossambicus</i>	C
Ikan nila	<i>Oreochromis niloticus</i>	C
Ikan semah	<i>Tor douronesis</i>	W

(Notes : C = cultivation, W = wild)

From table 6 semah fish (*Tor douronensis*) are typical fish species Kerinci Kerinci used as an icon for the community because besides having good taste and delicious, fish fish semah also considered a god by the people. The fish is flaky and has a beautiful body shape like arowana fish that can also be used as ornamental fish (Figure 3).



**Figure 3:** Semah pisces (*Tor douronensis*)

Semah fish habitat in the form of fresh water with strong currents such as Lake Kerinci, Lake Kaco, Seven Lakes Mountain and Lake Lingkat. Semah fish price reached Rp 100.000, - per kilo, a medium sized fish semah can reach 7-8 kg, whereas the greatest ever encountered up to 15 kg. The existence of this semah fish increasingly difficult to find. Based on information in the field has been carried out sowing breeding of fish in Lake Kerinci, but the success rate is small so fish life is expressed as rare species of fish. Besides sowing semah fish in Lake Kerinci also performed sowing the semah fish in the 'depths ban' which is a kind of system of conservation of biological resources conservation of the river that was confirmed by custom. The concept of preservation of the depths of the prohibition until now proven to help preserve the biological resources of the river, especially the fish, because that stocking of fish in the depths of semah done this prohibition.

Especially for bottom fishing ban there on the island semah cage and serves for the preservation of the population, while the bottom of the prohibition contained in Dusun Lama Tamiai is a type of carp, carp and tilapia. The bottom of the ban in the Dusun Lama Tamiai useful for setting the harvest of fish so it can be enjoyed by all members of community. Well depths ban on the island cage or the bottom of the prohibition in the Dusun Lama Tamiai should not be harvested at will, but rather regulated by custom, at certain times. In addition to fish seed sowing depths semah ban has also made efforts semah fish breeding in Semurup but the success rate of small fish life. Currently semah fish has been declared as a rare fish and feared wild population is steadily running out and eventually extinct.

## Animal Utilization Pattern for Community Kerinci

Use patterns of animal by Kerinci community is daily, seasonal, and not fixed. Utilization is daily consumption of animal protein for the fulfillment of the community such as bream, seasonal utilization for certain activities such as traditional party, kendurisko and feast. While exploiting not be fixed usually at traditional ceremonies such as the inauguration and investiture into depati by cutting a buffalo. Based on the knowledge and practice of the use of animals by the community Kerinci, then the category of use of animals can be divided into 5 groups use is a source of food (animal protein), animals for medicine, animal predators of pests, animals bully, animals for ritual and animals of unknown utilization of particular ,

### Animal as Food Source

Kerinci community knowledge on wildlife related uses as a source of food is good enough for the types that are around them and in general are the types of cultivation such as cows, goats, chickens, ducks and fish. Other types of sources of animal protein derived from the results of hunting such as deer and elk that live in the wild in the forest is not so favored by them. Kerinci community do not eat animals that have claws like a hawk, a crow; animals which have fangs like a tiger, a bear, a cat; and small animals like rats crawling and creeping things. It is closely related to their faith as followers of Islam, which forbids these species for food.

Based on the results of the study in three locations, the community makes the cattle business is a sideline livelihood is not the main livelihood. Some families who do business cattle or buffalo assume it is a savings that can be sold by the time costly as for the cost of school children, for the celebration of marriage and other urgent needs. By grouping the benefits there are 17 species useful as a food source / sources of animal protein and all are types that have been cultivated / livestock (Table 7).

A total of 17 species that is the source of animal protein consisting of the class of mammals (5 species), aves (5 types) and Pisces (7 types), can be distinguished on the type of large livestock, small livestock and poultry. Large livestock such as cattle and buffalo; small livestock such as goats and sheep; and poultry such as chicken and duck / duck. In order not to disturb these animals / plants consuming neighbors like goats that eat the leaves of the fellow farmers to make an agreement that those who have it should lace-goat / tied, if not tied it must be considered in order not to eat the plants.

Table 7 shows that freshwater fish is a source of animal protein that is important for the people of Kerinci. Fish can be obtained from lakes and rivers (stem ayiek) that exist in their environment. Lakes and fishing rods ayiek is an area that is important for the people Kerinci. Levels of fishing are high and constant intensity can affect the amount and composition of the species of fish caught. Harvesting continuously, especially with high levels of harvesting that will affect the recovery of fish populations. So that the results are sustainable it is necessary to apply an effective alternative for reducing pressure on fish stocks for local people.

The presence of wisdom in the harvesting / fishing is one of the Kerinci community's efforts in controlling fish populations. Wisdom which they have a close relationship with the trust they have earned for generations. As events were observed by researchers that the ethical manners when to harvest freshwater fish in Lake Kaco.

People who will take the fish, first 'farewell and ask permission' to their ancestors who believed as 'gatekeepers and guards the lake' by saying, "Ancestors, grandson asked for permission to take the fish in the lake". It is believed that if it was not farewell, then the fish will never be obtained.

**Table 7:** Animal as protein source of Kerinci community

Local Name	Scientific Name	Class
Kambing	Capricarnus sumatraensis	Mamalia
Kelinci	Lepus negricollis	Mamalia
Kabau	Bubalus bubalis	Mamalia
Sapi	Bos sundaicus	Mamalia
Domba	Ovis aries	Mamalia
Angso	Cygnus Cygnus	Aves
Ayam buras	Gallus domesticus	Aves
Ayam kampung	Gallus gallus bankiva	Aves
Bebek /itik	Anas moscha	Aves
Itik serati/entok	Anas versicolor	Aves
Ikan sepat	Trichogaster trichopterus	Pisces
Ikan gurame	Osphronemus goramy	Pisces
Ikan lele	Dlarias batrachus	Pisces
Ikan mas	Cyirinus carpio	Pisces
Ikan mujair	Areochrmis mossambicus	Pisces
Ikan nila	Oreochromis niloticus	Pisces
Ikan semah	Tor douronesis	Pisces

#### Wildlife for Medicine

Kerinci community knowledge at the site of research on animals is useful as a medicinal ingredient not as good as their knowledge of plants. There were two types of animals they know are useful as a drug that is gratus (*Myrmeleon* sp) and earthworms (*Pheretima* sp). Kerinci community know gratus (*Myrmeleon* sp) as a useful insect for medicinal materials. Gratus are insects that can be found around homes. They stated that gratus can cure diabetes by means swallowed alive. The results of scientific studies prove that the sulfonylurea, ingredients contained in gratus turned out to have the same performance with artificial diabetes drug is now being circulated [13]. In addition to diabetes medications, gratus also beneficial for blood circulation, gratus similar to earthworms and leeches can penetrate or destroy clots in blood vessels that can lower cholesterol levels in the body [14].

While earthworms (*Pheretima* sp) can cure typhoid by softening the worm into a powder and then drunk. The results showed that turns earthworms Lumbrokinase contain enzymes that can normalize blood pressure, but it is

also a very high source of protein that is needed by people with typhoid to restore his endurance [15]. The results of scientific studies have proved that local knowledge possessed by the people Kerinci to benefit dragonflies and gratus is scientifically correct. This knowledge is derived from the accumulated experience of generations of previous generations.

In the modern era, the trend of traditional medicine using natural resources of animals increased (zooterapi). The World Health Organization (WHO) estimates that as many as 80% of the world's population (more than six billion people) relies primarily on animal and plant-based medicines. Zooterapi phenomenon has a wide geographical distribution and historical origins very deep. Studies on the use of animals and body parts of animals for treatment (zooterapi) not as much when compared with the study of plants. In modern community, zooterapi an important alternative treatment therapies among many other known and practiced all over the world. The use of animals or parts of the body either wild or domesticated animals (such as nails, skin, bones, fur and fangs) is an important ingredient in traditional medicine. Traditional Chinese medicine has documented more than 1500 species of animals have been used as a medicine. In India, 15-20 per cent of ayurvedic using materials derived from animals while Bhatia state in northeast Brazil recorded more than 180 species of animals have been used as medicine and treatment [4].

#### Predators Pests and Pest Animals

Most animals that are known by the people Kerinci regarded as predatory animals. The existence of trophic relationships in the food chain has been understood by the community. According to their knowledge if that bothers rice field rat population increases it means the animal predators such as snakes rice rats, birds such as hawks reduced. Kerinci in the knowledge community, there are several species of wildlife whose existence is regarded as nuisance animals. Because of the existence of these animals are picked up and interfere with their agricultural products. The animals include monkeys (*Macaca fascicularis*) and wild boar (*Sus scrofa*) that often interfere with plant corn, cassava and chili crops while rice rat (*Rattus argentivente*) interfere with the rice crop.

Kerinci community efforts made to overcome this nuisance animals is to hunt. Animal hunting is usually done jointly by men at certain times, especially on the eve of the harvest. The hunt is done is to get the animals bully and usually killed because according to people's belief, these animals including species that are forbidden to be eaten. Besides hunting societies also conduct intensive care on the farm or in the fields, especially during harvest time even to stay in the fields.

Refernce [12] states that of the wildlife that when the population is having a blast making and / or have been considered a pest by the community then harvesting is absolutely necessary. Harvesting effort was done in order to balance the size of the population in the context of the natural ecosystem food chain. Santosa also stated there are four main reasons why the harvesting of wildlife is necessary to: (a) as an important tool in the management of the population, (b) the fulfillment of animal protein for local people / around, (c) as a source of cash income for local communities and (d) as a vehicle for recreational hunting.

#### Wildlife for Ritual

Kerinci community knowledge on the use of animals for ritual is closely related to ancestral beliefs. The existence of several traditional ceremonies and belief in the 'plant / bury' the head of buffalo (*Bubalus bubalis*) into the ground if there is the construction of bridges and other infrastructure construction. According to them by planting buffalo head of the ancestors will give kindness to the building, it can be said as a buffalo head 'offerings' for their ancestors. Jungle fowl (*Gallus various*) is also used as animal ritual is to shaman ritual in healing various diseases caused by unseen forces.

Besides buffalo and pheasant, goat (*Capra aegagrus*) can also be used as animal ritual in terms of 'brotherhood ceremony'. Kerinci community have a belief that you can look through the goodness and intimacy fellow, someone who is already considered 'brothers' would have a close brotherly relationship as siblings. The fraternity made must be announced in the country through a brotherhood ceremony by inviting citizens and had to cut a goat as a prerequisite.

#### Wildlife for Pet/Hobby

Species as a pet by the people Kerinci is a dog (*Canis familiaris*), cats (*Felix domestica*) and several species of birds. Dogs are maintained because it can be used as animal keepers and animals to hunt, while cats are maintained because they assume the cats are home-based pet animals' prophet so they also should love her. Bird species into domesticated birds are chirping. Based on observations in the field are not many families who keep animals for pleasure or hobby is due to the maintenance of animals that require no small cost and there must be time to take care of it.

#### Animal unknown Particularly Benefits

From the research there were as many as 18 species of cultivation (21%) while the remaining 67 species (79%) is still wild and more than half of the species of wildlife unknown benefits and usefulness by the community, especially the wildlife that live in the forest. This shows that the Kerinci people's knowledge of the extent of the introduction of new animal species, while for the benefits and usefulness of new unknown species closely related to the daily needs and related to their farms. However, in principle Kerinci people know that all animals that are around them whether known or unknown benefits are God's creatures who have their own place. The community also knows there are animals that may be eaten and there should not be eaten, there can be traded and there are not transferable.

#### **4. Conclusion**

Kerinci community who live around the forest for a long time ago until now has been an independent and even sovereign to the animal protein needs. They have knowledge of ethnozoology marked by the introduction of various animal types and categories of use. Their knowledge about the diversity of species is limited to animals close to their living environment and mainly used for the needs of animal protein as a food sources. These knowledge is manifested to the introduction of 85 species consisting of wildlife (79%) and the domestication of animals (21%). Animal classification based on class consisted of mammals (29 species), insects (18 species), aves (16 species), reptiles (9 types), pisces (7 types), vermes (1 type), and centipede (1 type). About 20 percent

of these types were utilized especially for food sources (animal protein). Another benefit is as medicine and traditional rituals. Some species are known as predatory animals, pests and nuisance animals, pet/hobby and animals with unidentified benefit.

### **Acknowledgements**

The present research was funded by Directorate of Higher Education (DIKTI) through a research competitive grants and ICRAF by scholarship study

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