
Consumption of wild animal products in Ho Chi Minh City

Results of resident and student survey

Ho Chi Minh City, May 2011





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Abbreviations

Cu Chi WRS: Cu Chi Wildlife Rescue Station

HCMC: Ho Chi Minh City

SS: Secondary School

UOS: University of Science

VNU-HCM: Vietnam National University-Ho Chi Minh City

WAR: Wildlife At Risk



Abstract

From August 2010 to April 2011, a survey on using wild animal products was conducted on 4,062 residents and 3,562 secondary school students in Ho Chi Minh City. The results of this research provide a foundation for activities of Wildlife At Risk (WAR) in order to prevent illegal wild animal trade and consumption. This report presents results of this survey.

The survey aims to gain an understanding about behaviour, knowledge and attitude of residents and students towards wild animal product consumption in Ho Chi Minh City.

In the survey, Ho Chi Minh City residents from various age groups, professions, education levels, working positions and secondary school students are selected randomly to answer questions relating to their usage of wild animal products; their knowledge about endangered species, ecosystems, roles of wild animals, threats to wild animals, wild animal trade and the way to protect wild animals; their attitudes towards wild animals and wild animal protection, and their receptiveness to different types of media.

The survey reveals that usage of wild animal products in Ho Chi Minh City is fairly common and could increase in the future. Usage of wild animal as a food source is the most common among other purposes of using wild animals.

The residents and students of Ho Chi Minh City have good knowledge about the roles of wild animals but a poor understanding about the rarity levels to a particular species, especially the smaller species that are mostly consumed.

Ho Chi Minh City residents and students also do not know clearly about wild animal trade. They think that any action of wild animal trade is illegal. They are not aware that consumption of wild animals creates the driving force for hunting and trading of wild animals pushing many species to the brink of extinction in Vietnam.

The survey reveals that the students have a better understanding towards wild animal protection. They also show better willingness in taking part to protect wild animals more so than adults.

Television seemed to be the preferred learning tool for the residents and students. In the coming time, Internet is also an effective channel for communication and education about wild animal protection.

This report also presents recommendations in order to stop the illegal consumption of wild animals and their products. These recommendations focus on (1) Contents and types of communication activities for residents and students, (2) Researching and introducing sustainable wild animal product options, (3) Strengthening enforcement efforts on wild animal protection, and (4) Wildlife conservation.

This research is the first attempt that aims to understand more clearly about the consumption of wild animal product of residents and young generation in Ho Chi Minh City. In the coming time, further researches should be conducted in order to update the situation of wild animal product consumption situation of the residents and young generations. This survey can act as a foundation for the effective conservation of wild animals and their habitats.





Quick findings

Ho Chi Minh City resident survey

- Nearly **51%** of the surveyed residents who live and work in Ho Chi Minh City (HCMC) have used wild animal products, of which 48.4 % have consumed wild animal products more than three times per year.
- Food accounts for the greatest percentage of wild animal products consumed in HCMC (75.3% of people who have consumed wild animal products), followed in turn by wild animal drinks, health products, pets, and fashion and ornamental purpose. Restaurants in HCMC are the most common place for people to eat wild animal foods.
- Species that are most widely consumed, and therefore are the most threatened species include snake, wild boar, stag, deer, wild fowl, porcupine, bear, civet/weasel, turtle, python, and monitor lizard.
- Men consume more wild animal products than women.
- Middle-aged group (of about 36-45 years old), government officers, and people with high education levels have a tendency to consume wild animal products more than other age groups, people with lower social working position, and people with lower education level.
- People who work at state and private enterprises have a tendency to consume wild animal products more than people with other profession groups.
- The consumption of wild animal products of HCMC people seems to have a tendency to increase in the future.
- The majority of HCMC people eat wild meat because others invite them, they want to try new experiences or they feel the meat is more delicious.
- The surveyed residents of HCMC do not know clearly about wild animal trade. They think that trading of any wild species is illegal.
- The survey residents do not understand that the wild animal product consumers are the force of illegal hunting and trading of wild animal products, helping push some wild animals to the brink of extinction.
- The survey residents do not care about wild animal protection, and they also are not willing to act when they see illegal trading of wild animal products.
- Television and other mass media are the favourite communication channels of HCMC people. Internet will be an important tool to educate them about wild animal protection in the future.



Food accounts for the greatest percentage of wild animal products consumed in HCMC

Secondary school student survey

- The consumption of wild animal products of secondary school students in HCMC was strongly influenced by their parents and adults in their families.
- Only 28.2% of surveyed students in HCMC have consumed wild animal products. Of which, 30.7% have consumed wild animal products more than three times per year. More male students consume wild animal products than female students.
- Food accounts for the greatest percentage of wild animal products consumed among the students (58.8%), followed in turned by pet, ornamental purpose, health product and wild animal drink.
- Most of the survey students eat wild meat because they want to try a new experience and feel the meat is tastier.
- Students usually go to eat wild meat with their parents in specialty restaurants in other provinces or during family events such as birthdays and family gatherings at home.
- Surveyed students have a good knowledge about the roles of wild animals but they do not understand well about the rarity levels of smaller wild animal that are mostly consumed.
- Surveyed students do not understand clearly about the wild animal trade. They think that trading of any wild animal species is illegal.
- Surveyed students are not aware that consumption of wild animal products is the driving force behind animal hunting and trading and pushing some wild animals to brink of extinction.
- The survey students have a positive attitude towards wild animal protection. They are also more willing to take part in wild animal protection than adults.
- Field trips are the preferred activity of the students in order to learn about wild animal protection; followed by the interactive exhibitions and games.
- Television, games and websites with wild animal protection message are effective education tools for the secondary school students.



Primates are one of wild animal species mostly kept as pet

Photo: Simon Faithfull

Chapter 1.

Background

Vietnam has a rich resource of wild animals including many endangered wild animal species. Wild animals play important roles to humans and ecosystems. Nowadays, the wild animals are being threatened; more than 400 endangered animal species are listed in Vietnams' Red Book, 2007.

More and more wild species are being pushed towards extinction. The Javan Rhino (*Rhinoceros sondaicus annamiticus*) that died in Cat Tien National Park in May 2010 could be the last Javan Rhino in Vietnam. The deaths of seven wild elephants at Dong Nai province highlights the problems facing Vietnams' remaining wild elephant populations in Vietnam; or the possible extinction of wild tigers in Vietnam by 2022.

The extinction of wild animal species not only affects the ecological balance, but also a great loss for human beings as they have potential uses and applications in agriculture, healthcare and technology.

There are many causes for wild animals in Vietnam facing extinction, including illegal hunting, trading and capturing of wild animals; and losing habitats due to forest destruction in the process of country modernisation and industrialisation; forest burning or changing of land use purposes. Environmental pollution is also another cause for wild animal becoming increasing rare.

Many people think that wild animals being hunted and traded is the largest threat to wild animals. But in fact, consumption of illegal wild animal products is the main force of wild animal hunting and trading and therefore it is the main reason that pushes the wild animals to the brink of extinction.

Vietnam has many efforts to prevent illegal trade and consumption of wild animals. Law system relating to wild animal protection in Vietnam is quite adequate. Vietnam also joined CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora) in 1994 in order to combat species extinction due to global trade.

According to experts, Ho Chi Minh City is one of the "hot spots" of wild animal product consumption in Vietnam. Ho Chi Minh City not only is a place where wild animal products are consumed but also a transshipment terminal for many routes of the wild animal trade.

The research of wild animal product consumption situation in HCMC will be an important base for promoting wild animal protection effectively and timely.

Wildlife At Risk (WAR) cooperated with the Faculty of Biology, University of Science, VNU-HCM carried out the survey on using of wild animal products in

HCMC. Target groups of the survey are HCMC residents who are the current consumers and secondary school students who are future consumers of the wild animal products.



A traded frozen tiger
©WAR/ Nguyen Vu Khoi



Chapter 2.

Introduction

Survey objective

To understand wild animal product consumption in Ho Chi Minh City.

Survey contents

Contents of the survey are as below:

- Identify behaviour of wild animal product consumption: the percentage of consumers, frequency of consumption, purposes of consumption, species that are usually consumed, where, when, why and consumption tendency in the future.
- To determine target groups who consume wild animal products: who are they, gender, age, profession, education level and working position.
- To evaluate knowledge, attitude of wild animal product consumers including knowledge about rare species, ecosystems, roles of wild animals, threats to wild animals, wild animal trade and consumption and how to protect the wild animals; attitude towards animals and animal protection; caring about leaving the animal resources for future generations and willingness to protect the animals.
- Favourite communication channel and favourite education activities.

Survey target groups and locations

Target group

The survey focused on two target groups including residents and students of HCMC.

The HCMC resident survey was conducted with 4,062 residents in four districts including District 1, District 3, Phu Nhuan District and Binh Thanh District. In addition, some people in District 5, District 4, Tan Binh District, Go Vap District and Thu Duc District were also willing to be interviewed.

The number of surveyed residents is decided by applying Yamane's equation on identifying samples of this survey as below:

$$n = \frac{N}{1 + N * e^2} \rightarrow e = \sqrt{\frac{1}{n} - \frac{1}{N}}$$

n: The number of sample need to be surveyed

N: Population of Ho Chi Minh City

e: The expected accuracy (e=1 - reliability).

As the population of HCMC is 7,165,398 people (HCMC Statistic Agency, 2009) and the number of samples is 4062, the reliability of this resident survey is 98.4%. This is a high reliability.

The surveyed residents represent all the residents of HCMC, especially urban residents. The surveyed people were selected randomly, including a balance of gender, profession groups, age groups, different education levels and different working positions.

The student survey was carried out with 3,562 secondary school students and children aged from 12 – 15 years old. Children at this age are the most effective group for wild animal education



programmes. They are able to think critically about the wild animals issues and make decision on their own. Results of the survey will be a foundation for WAR to design education programmes for this target group. The surveyed students in 34 secondary schools in four districts: District 1, District 3, Phu Nhuan District, Binh Thanh District, members of “I love nature” club (aged from 12 -15 years old) of Khan Quang Do Magazine (District 3) were conducted randomly. In each school, four classes from Year 6, Year 7, Year 8 and Year 9 were selected. Among the surveyed students, about 1000 students who visited the Cu Chi Wildlife Rescue Station (Cu Chi WRS) during the surveyed time were also interviewed. According to the equation of Yamane (1967-1986), this survey conducted with 3,562 students out of 314,416 secondary school students of HCMC (HCMC Statistic Agency, 2010) achieves a reliability of 98.2%. This is also a high reliability for a survey.

(See Appendix 1: Information about target groups)

Survey area

The survey area was decided after consultations with conservation colleagues and especially with the Mobile Team, HCMC Forest Protection Department. Ho Chi Minh City has a vast total area, so the survey decided to focus on urban districts including: District 1, District 3, Binh Thanh District, and Phu Nhuan District.

Methodology and Schedules

The main methods of the survey were interview and filling in the survey questionnaire. The survey was carried out from August 2010 to April 2011, it included stages such as (1) Desk research, survey area determination and questionnaire development, (2) Volunteer student training and survey implementation, (3) Data input and analysis, and (4) Reporting and discussion.

Desk research, survey area determination and questionnaire development

This stage was carried out from August to September, 2010. Desk research involved relevant materials and surveys on wild animal trade and consumption in Vietnam. These references were helpful to decide on the content and the method of the survey.

After that, survey contents, targeted groups and the survey areas were decided.

The survey questionnaire was designed to achieve survey objective and survey contents. The questionnaire is designed in a way that it is easy for both respondents and interviewers.

The survey questionnaire was conducted on experts, but also was tested on teacher and students before it was used officially. (See Appendix 2, 3 about the survey questionnaires).

Volunteer student training and survey implementation

This stage was carried out from October to December 2010.

Roughly 60 volunteer students conducted this research task. Most of them come from Faculty of Biology - University of Science (UOS), Vietnam National University HCMC, including second-year, third-year and four-year students, master students and newly graduated students.

A training course that lasted for one day was implemented for volunteer students to equip them with the necessary interview skills so that they are able to collect the most information from interviewees.

Volunteer students directly interviewed residents at their home. Only one person from each household answered the questionnaire, apart from the teachers who visited Cu Chi WRS from October to December 2010 who were also interviewed.

The trained volunteer students and WAR staff conducted the secondary school student interview at each class. Interview questionnaire and instructions were delivered carefully, the survey students filled in the questionnaire and handed it back to the interviewer right after they completed it.



A group of volunteer students share experiences of the survey (left), volunteer students practice how to interview residents at the training course.

©WAR/ dohuyen

The trained volunteer students and WAR staff conducted the secondary school student interview at each class. Interview questionnaire and instructions were delivered carefully; the surveyed students filled in the questionnaire and handed it back to the interviewer right after they completed it.

During the survey, WAR staff and professors from Faculty of Biology, UOS regularly monitored and instructed the volunteer students to make sure that the survey achieved adequate and objective information.



Students of Dong Da Secondary School were answering the survey questionnaire

©WAR/ dohuyen

Data input and processing

This stage was conducted from January to March 2011 and included the input of data into the database developed for the survey. Data was automatically processed in Open Office.org to ensure its accuracy. Reliability and accuracy of the survey is processed with the SPSS.

Analysis and reporting

This stage, carried out from April and early May 2011, included reviewing the processed data and turning it into graphics and charts. This processed data was then analyzed. Findings and recommendations were then discussed and developed.

Limitations

This survey focused only on the inner districts of Ho Chi Minh City but not the remote ones.



Check the questionnaires before inputting data

©WAR/ Do Thi Hong Hoa



Chapter 3.

Survey results

Results of the HCMC resident survey

Behaviours of wild animal product consumption

Consumption percentage, purposes and frequency

The survey reveals that 50.8% of the surveyed residents in HCMC have used wild animal products. The consumption percentage of wild animal products in researched districts is fairly similar. Samples from other districts including district 5 were relatively small and thus the percentage might not be reliable (Figure 3.1).

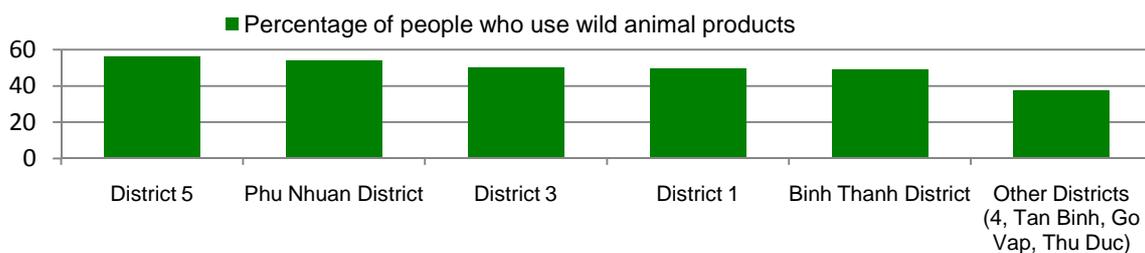


Figure 3.1. Percentage of people who use wild animal products in researched districts

Food accounts for the greatest percentage of wild animal products consumed in HCMC (75.3% of the people who use wild animal products), followed in turned by wild animal drinks, health products, pets, and fashion and ornamental products.

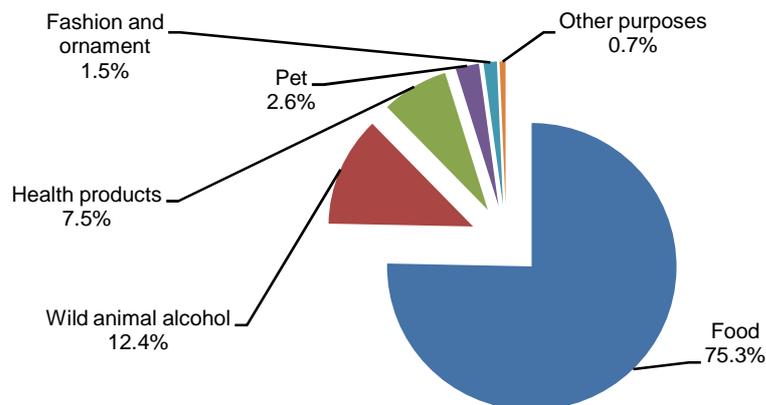


Figure 3.2. Types of wild animal product consumption of HCMC residents

48.4% of people who use wild animal products have used the products at least three times per year. The other 51.6% have used the products less than three times per year.



Species at Risk

Wild animal species that have been the most widely consumed (average from all consumption purposes) include snake, wild boar, stags/deer, wild chicken, spot-billed duck, lesser coucal, porcupine, bear, civet/weasel, fresh water turtle, python, and monitor lizard. These species are of the highest risk of being consumed and therefore the most threatened. (Figure 3.3)

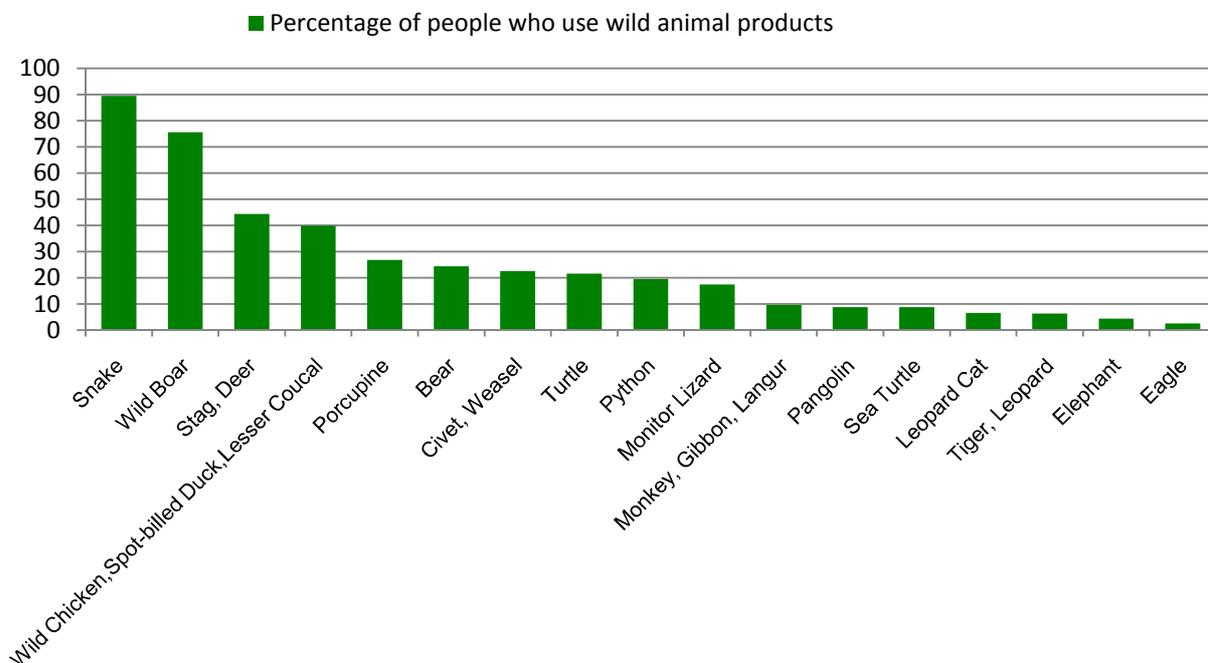


Figure 3.3. Species that are mostly consumed.

- Species mostly consumed for food includes: snake, wild boar, stag, deer, wild chicken, spot-billed duck, lesser coucal, porcupine, bear, civet, weasel, turtle, monitor lizard, and python.

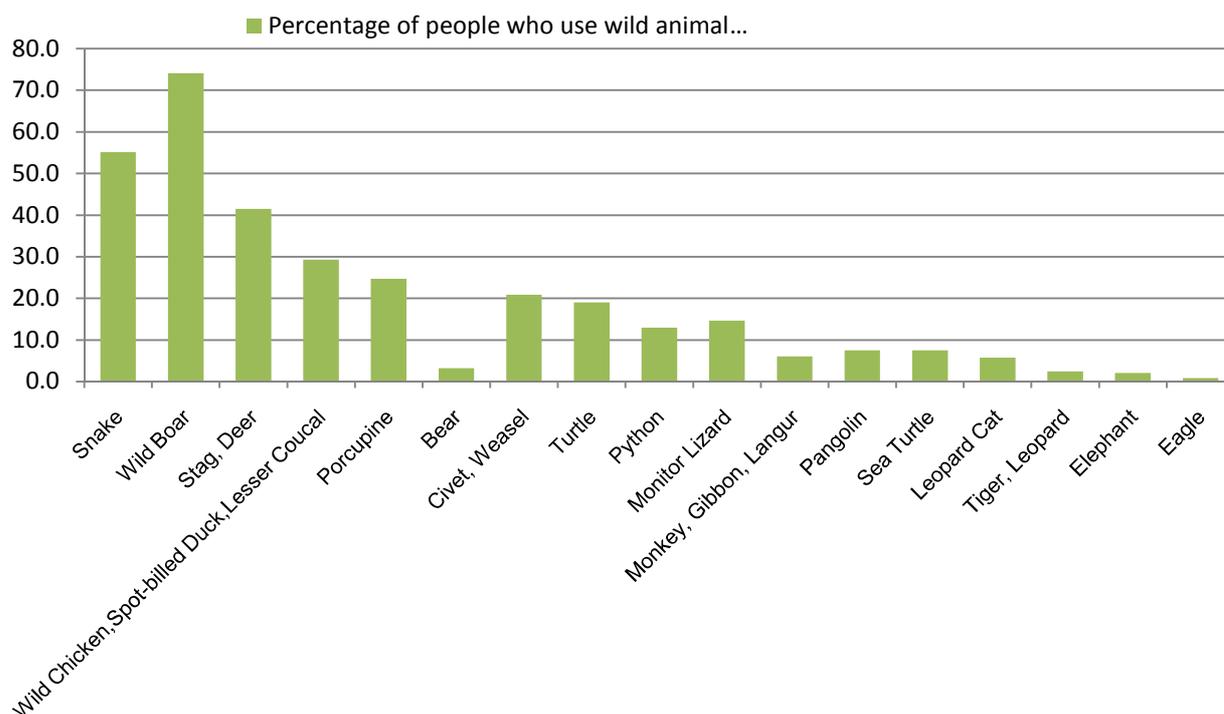


Figure 3.4. Species that are mostly consumed for food.



- Species mostly consumed for alcohol drink includes: snake, spot-billed duck, lesser coucal, and bear.

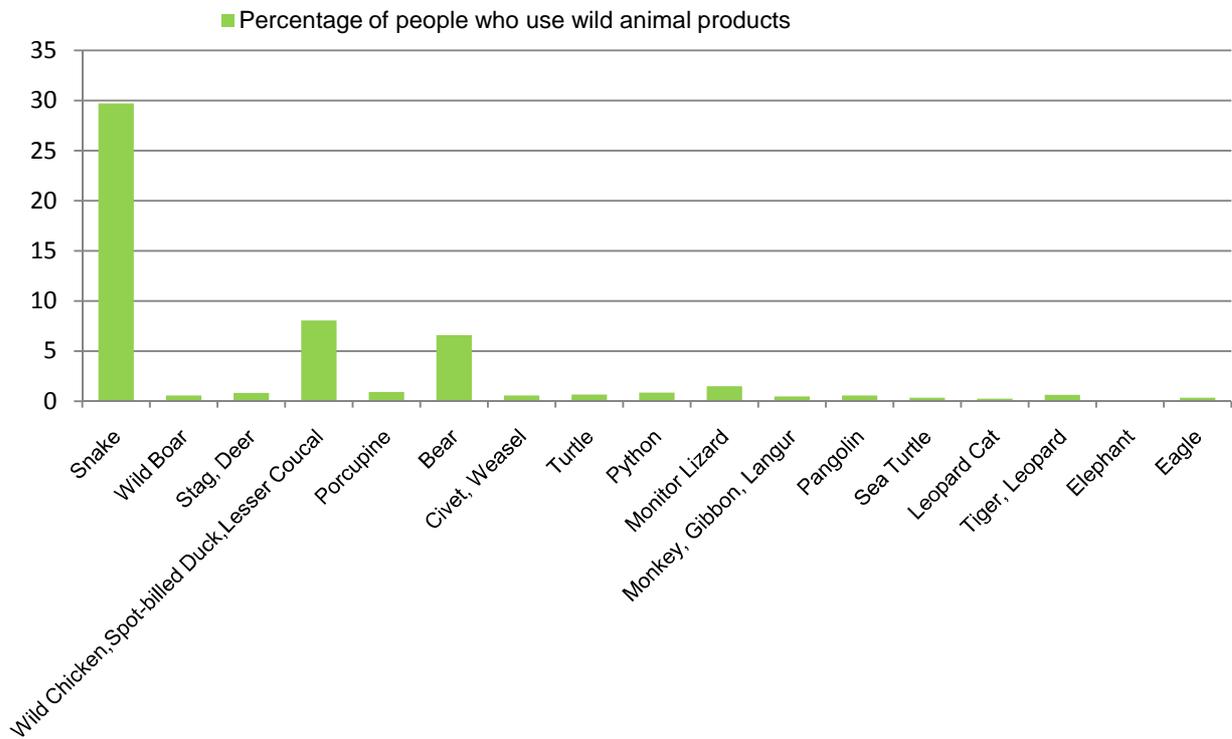


Figure 3.5. Species mostly consumed for drink

- Species mostly consumed as health products include: bear, python, snake, tiger, leopard, lesser coucal, monkey, gibbon, and langur.

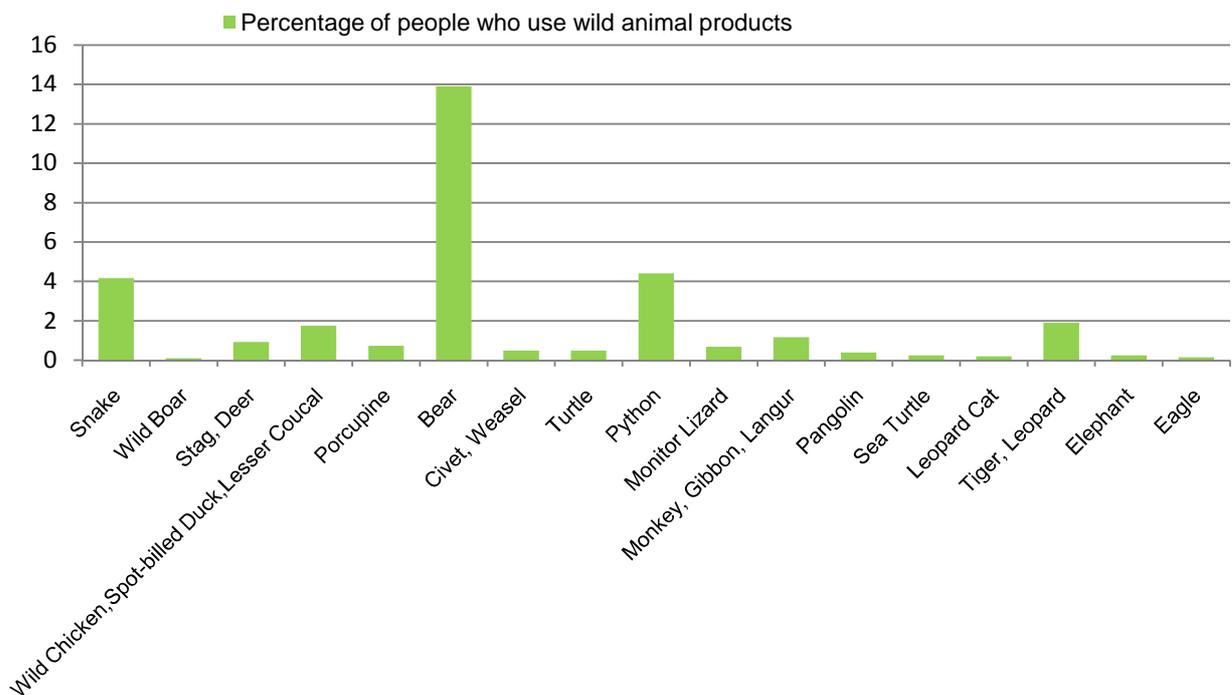


Figure 3.6. Species mostly consumed for health products.



- Species mostly consumed as pet include: monkey, gibbon, langur, sea turtle and bird species.

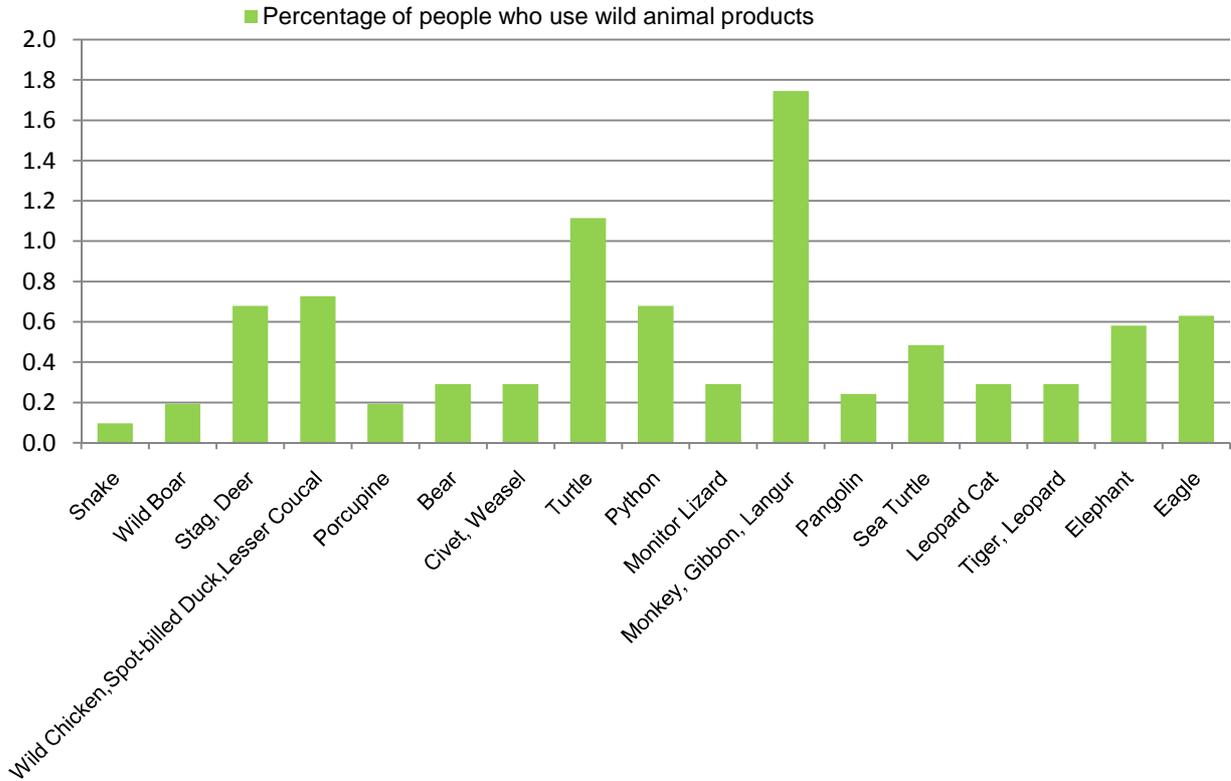


Figure 3.7. Species mostly kept as pets.

- Species mostly consumed for ornamental and fashion purposes include: elephant, tiger, leopard, wild boar, stag, and deer

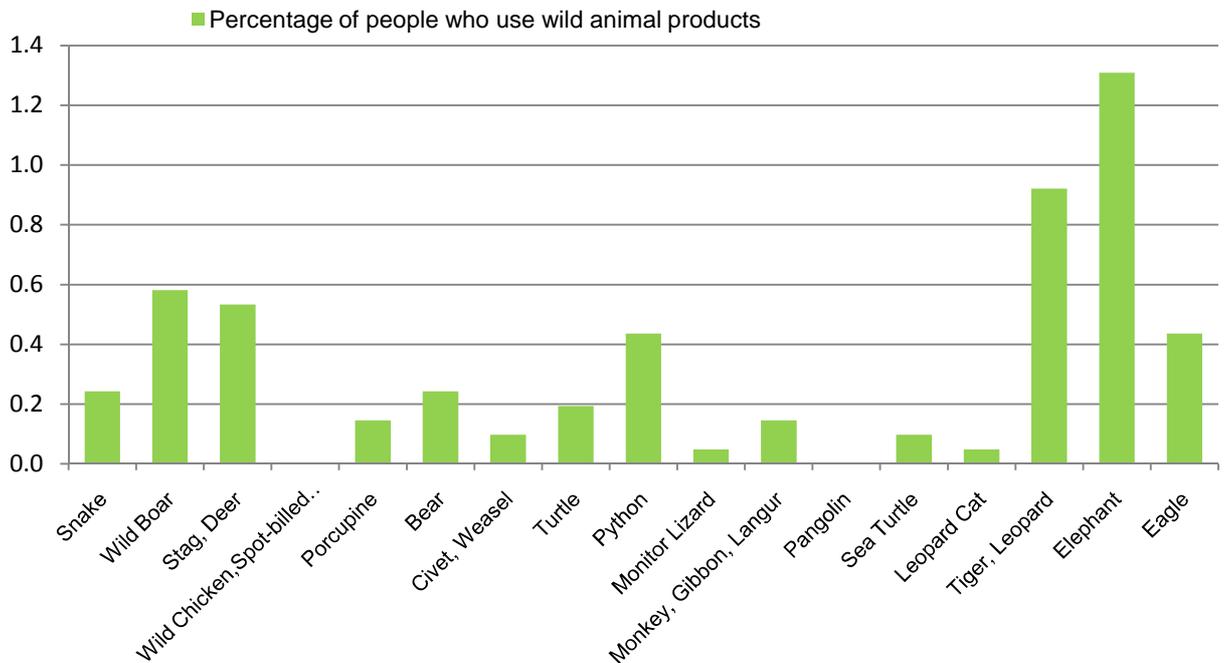


Figure 3.8. Species mostly consumed for ornament and fashion purposes

Reasons for eating wild animal food and drinking wild animal alcohol

The people who have consumed wild animal product admitted that they eat wild animal food and drink wild animal alcohol because others invited them, they wanted to try a new experience, it's tastier and it's good for the health. Besides, they eat wild animal meat because they want to invite business partners and they can afford this type of food. Figure 3.9.

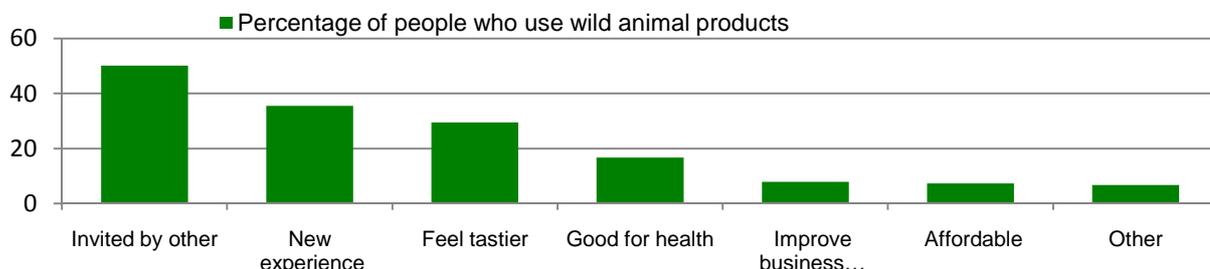


Figure 3.9. Reasons for eating wild animal food and drinking wild animal alcohol

Occasions and places for eating wild animal food and drink wild animal alcohol

Most people who use wild animal products stated that they eat wild animal meat or drink wild animal alcohol at family events such as birthdays, and family meetings... (26.5% of the people who use wild animal products). The next popular occasion for eating wild animal meat and drinking wild animal alcohol is on holidays (25.1% of the people who use wild animal products) or whenever they like. When they travel to other provinces or go to the countryside, they also consume wild animal products.

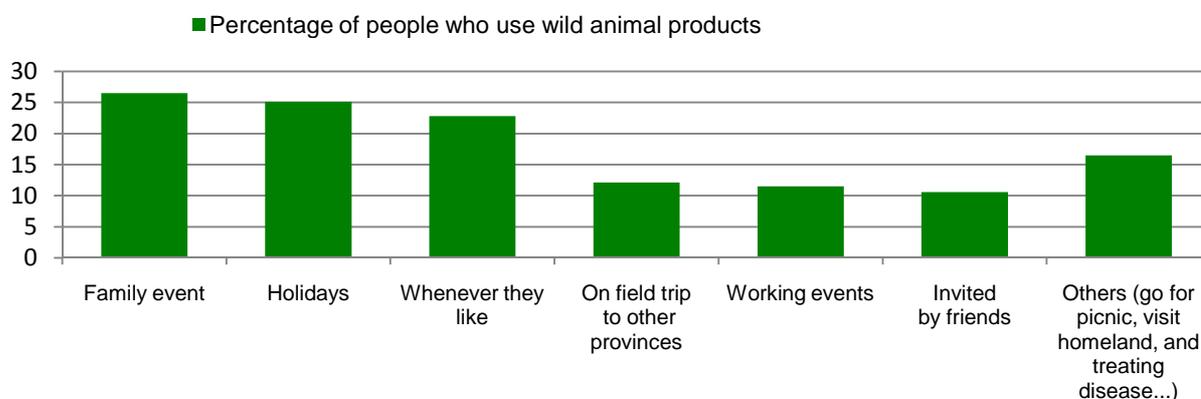


Figure 3.10. Occasions for eating wild animal food and drinking wild animal alcohol

The most popular places where they eat wild animal meat and drink wild animal alcohol are restaurants in HCMC (44.1% of the people who use wild animal products). The next places in turn are at home (40.6% of the people who use wild animal products) and specialty restaurants in other provinces (23.4%).

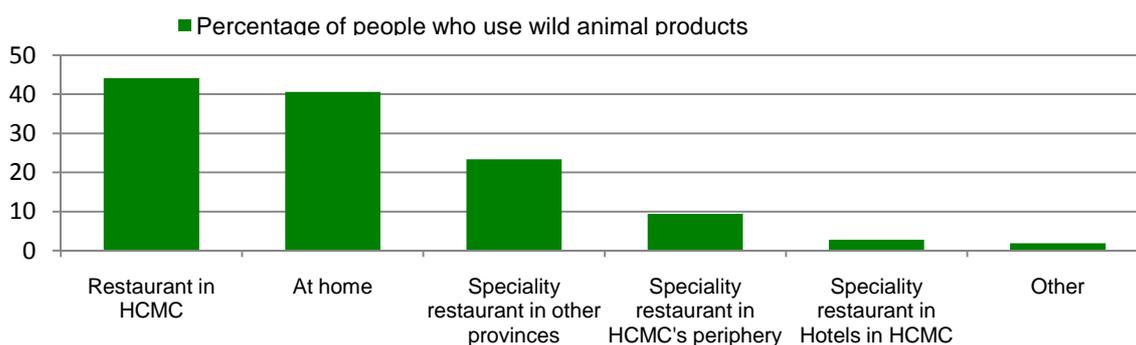


Figure 3.11. Places for eating wild animal food and drinking wild animal alcohol



Tendency of wild animal product consumption

According to the survey, 72.1% of the people who use wild animal products stated that they use wild animal products in 2010 less than other years. The most common reason being the increase in price, they have limited opportunities to consume wild animal products, and they hardly buy because wild animal products are becoming increasingly rare and more difficult to buy, they were not invited and they were busy. Very few consumers stated that they use less than before because they want to protect wild animals or they knew that the consumption of wild animal products is illegal. This reveals that if they are invited and are able to afford it, they may have consumed wild animal products more frequently.

27.1 % of the people who use wild animal products responded that they consumed wild animal products in 2010 more than before or as much as before because they are invited, it is taster, it's good for their health or they can afford it. (Figure 3.12)

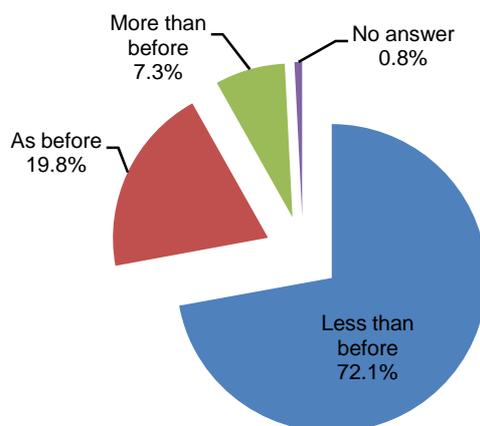


Figure 3.12. Wild animal product consumption in 2010 compared with before

Roughly 35% of the surveyed people who do eat wild meat admitted that the reason they do not eat wild meat because it's too expensive or they have no opportunity to eat it. This means that these people might eat wild meat if they have the opportunity or if they could afford it. Of the people who do not eat wild meat, 43.8% stated that they have no demand for using it. Just 29.7 % of people who do not eat wild meat answered that they do not want to break the law, do not want to cause negative impacts to nature and the environment, or they love animals.

Nearly 50% of the surveyed residents in HCMC confirmed that they would eat wild meat if they were invited. 25.9% of people that do not eat wild meat responded that they would eat wild meat if they were invited. And 13.1% of the survey residents do not know if they will use wild animal products in the future or not. (Figure 3.13). This reveals that the number of the people who use wild animal products will be higher in the near future.

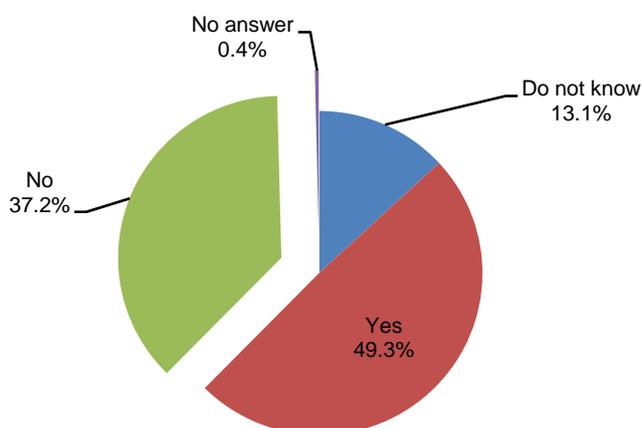


Figure 3.13. Percentage of HCMC residents that could eat wild meat if they are invited

In the future, 29.3% of the surveyed residents in HCMC stated that they will use wild animal products and 28.4% of the surveyed residents did not know if they will use or not. Just 42.0% of the surveyed residents confirmed that they would not use wild animal products.

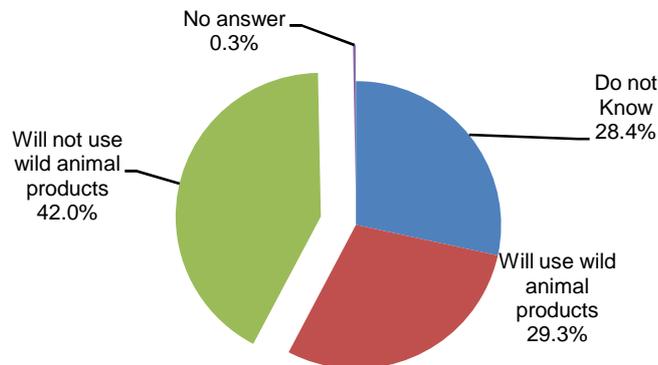


Figure 3.14. Percentage of HCMC residents that could use wild animal products in the future

However, the good news is that 62.5% of the people who are using wild animal products are willing to use alternative products. (Figure 3.15).

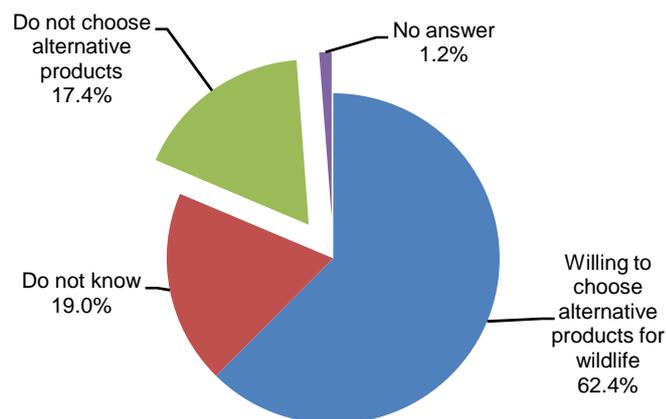


Figure 3.15. Percentage of surveyed people willing to choose alternative products

Discussion

The consumption of wild animal products, especially wild animal food, is common among HCMC residents. The consumption of wild animal products is influenced by their habit, curiosity, and social pressure. Most HCMC residents use wild animal products because other invites them, or they want to try a new experience. They usually consume wild animal products at family events at home. If HCMC residents are invited to use wild animal products, most of them will accept. If others do not invite them, they may not have consumed wild animal products. This demonstrates that social pressure has an effects on the consumption of wild animal products.

In the near future, the consumption of wild animal products may increase remarkably because nearly half of the survey residents in HCMC will eat wild animal meat if they are invited and a high percentage of HCMC residents will use wild animal products in the future or do not know if they will use wild animal product or not. However, a high percentage of people who have consumed wild animal products are ready to choose alternative sources. This indicates that solutions to change behavior of the people who use wild animal products need to consider alternative products that are legal and sustainable.



Consumers of wild animal products

Gender

According to the survey, men consume wild animal products more than women. 63.6% of the surveyed men have used wild animal products while only 38.4% of the surveyed women have used wild animal products. This also means that men consume more wild animal products than women.

Age

Middle-aged groups (36-45 years old) consume wild animal products most frequently (59.1%), followed in turn by the group of 46-55 years old (51.6%) and the group of 26-35 years old (51.1%) (Figure 3.16)

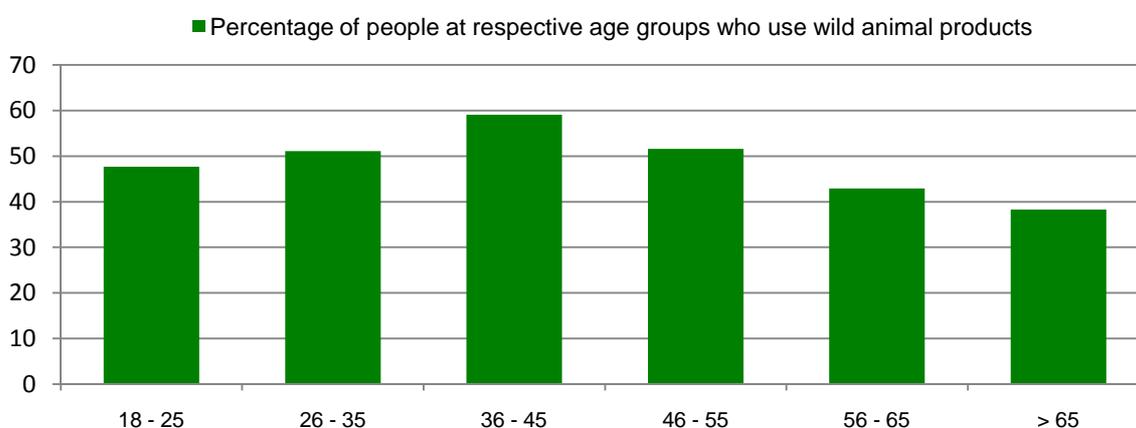


Figure 3.16. Percentage of age groups consuming wild animal products

Education level

Highly educated people are more likely to use wild animal products than those with lower education. People with postgraduate and undergraduate degrees consume wild animal products at the highest percentage (56.7% and 53%) (Figure 3.17). The number of samples for the group that do not attend school is only 59 i.e. not large enough and therefore the result of this group might not be reliable.

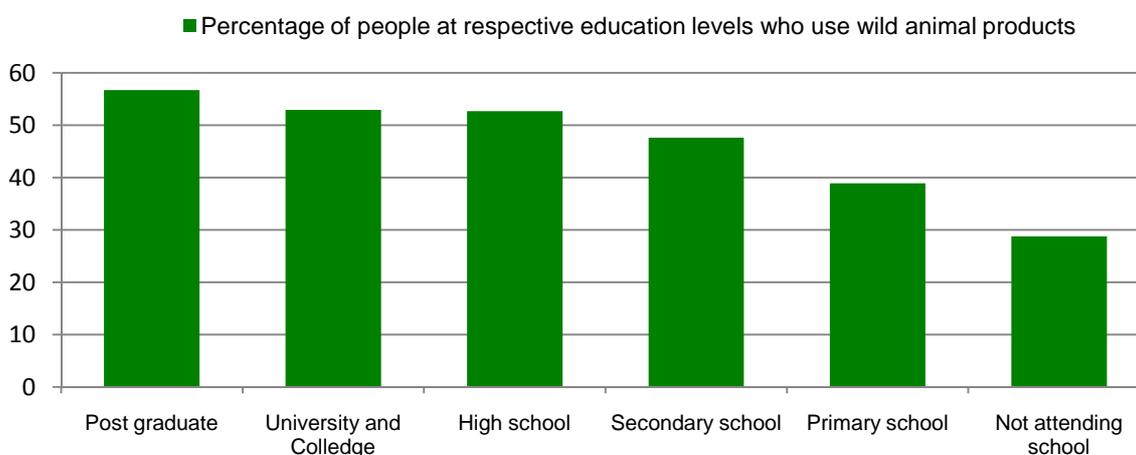


Figure 3.17. Percentage of people from different education levels consuming wild animal products



Profession

Among the surveyed residents, the percentage of people who work for state and private business companies using wild animal products is highest. Followed in turn by common worker group (53.7%) and government officers (52.4%). Results of the non-governmental organisation and farmers group are not reliable as the number of interviewed people from these two groups was too small (17 and 27 respectively). (Figure 3.18).

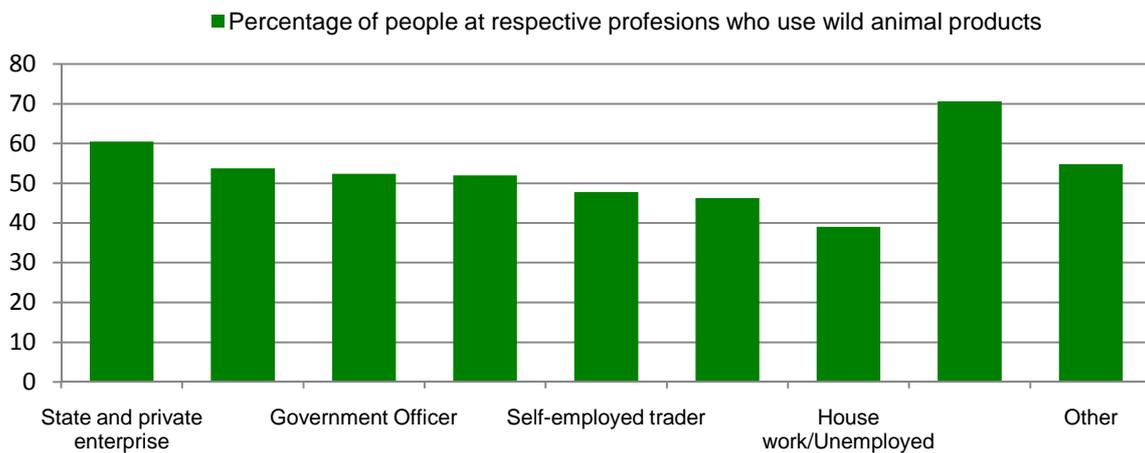


Figure 3.18. Percentage of people of different professions consumed wild animal products

Working position

The results reveal that management level staff use wild animal products more than regular staff. 60.7% of the surveyed management level staff have consumed wild animal products.(Figure 3.19)



Figure 3.19. Percentage of people from different working positions consuming wild animal products

Discussion

Factors such as gender, age, education level, profession and working position influence the decisions of wild animal product consumption. These factors need to be considered carefully in designing and implementing any communication and education programmes in order to change behaviours toward wild animal product consumption. The suggested main target groups of these programmes are middle-aged men (36-45 years old) with higher education levels and high working positions.



Knowledge and attitude

Knowledge

Knowledge about endangered species, ecosystems and the roles of wild animals

According to the results, 37.7% of respondents answered correctly about what is an endangered species. Over 60% of respondents answered correctly about rarity levels of wild animal species that are the most frequently consumed. Most people provide wrong answers about the level of conservation status applying to smaller wild animals such as wild chicken, spot-billed duck, lesser coucal, python, wild boar, porcupine, cobras. The respondents understood well about the rarity levels of larger wildlife species such as elephant, tiger, bear, leopard, and sea turtle. 45.3% of respondents know that small species also play an important role in the conservation of species.

The surveyed residents have a good general knowledge about roles of wild animals (97.9% of the surveyed people) and role of wild animals in human life's (67.6%).

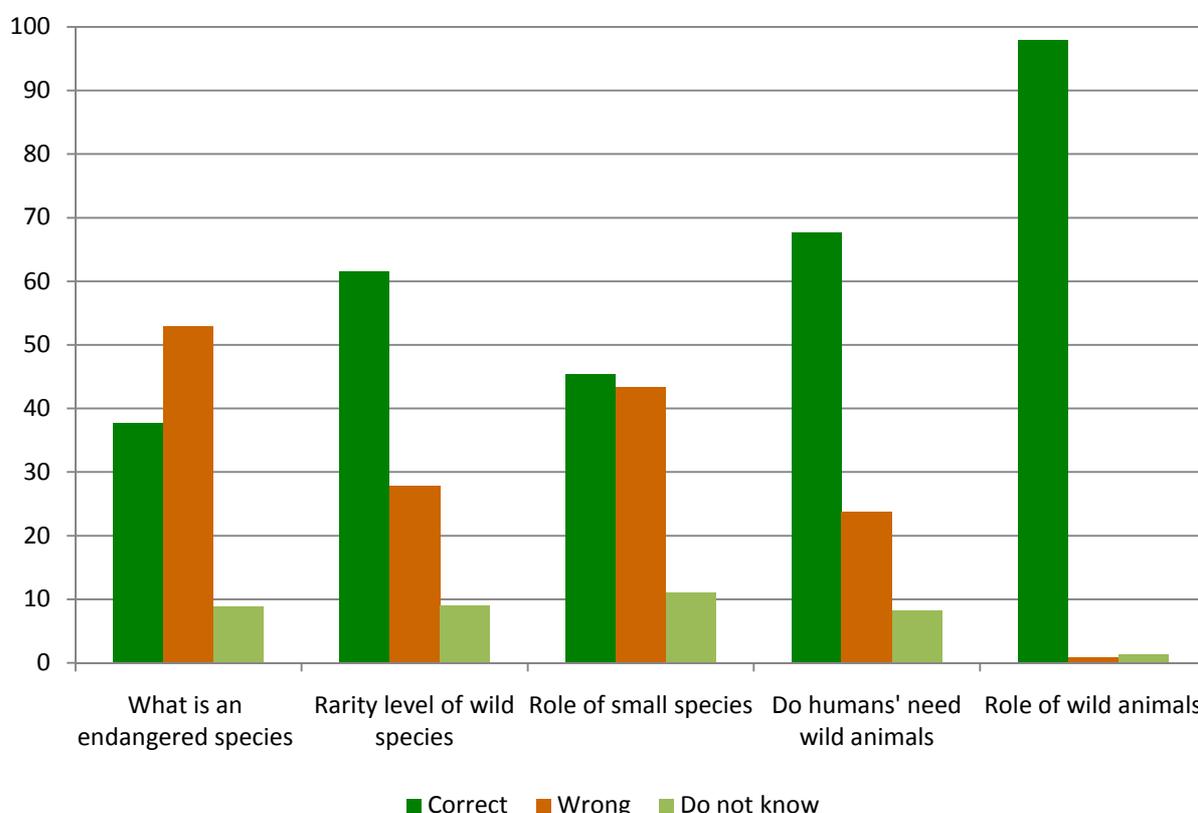


Figure 3.20. Knowledge about endangered species, ecosystems and the roles of wild animals

Knowledge of threats towards wild animals

Most respondents stated that the most dangerous threat to wild animals is illegal wild animal hunting (86% of respondents); the next threat is illegal wild animal trading (67.4% of respondents). 65% of respondents stated that forest destruction is the most dangerous threat to wild animals. 54% of respondents showed that illegal consumption of wild animal meat is a severe threat towards wild animals while 36.2% and 33.1% of respondents stated respectively that the dangerous threats are using wild animal as medicine and being kept as pets. Figure 3.21 shows that the wild animal product consumption of residents is not as dangerous as wildlife hunting and trading. However, in reality, the wild animal product consumption creates a demand for these species and thus it is the most dangerous threat toward wild animals.

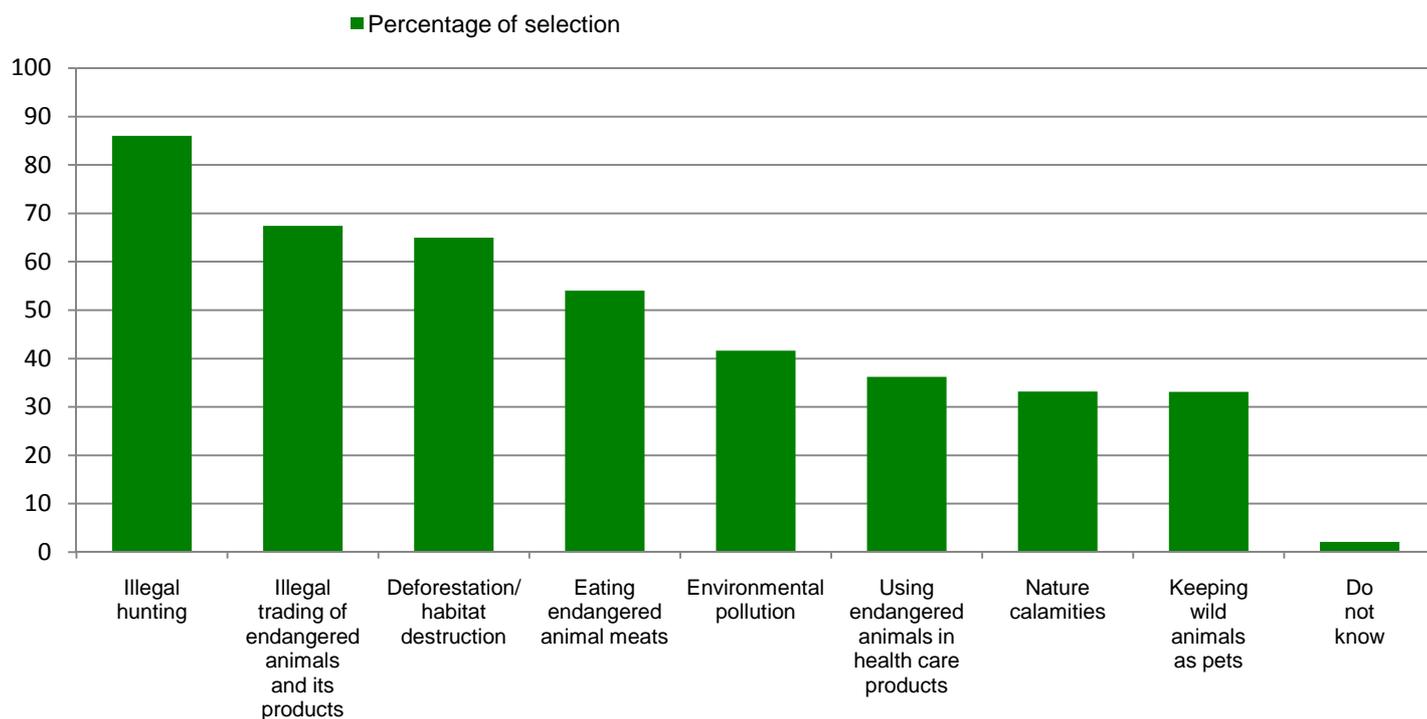


Figure 3.20. Knowledge of threats towards wild animals

Knowledge of the wild animal trade, consumption and protection

Most respondents (83%) misunderstand the fact about wild animal trade. They think that trading of any wild species is illegal. In reality, wild animal trade can be legal or illegal depend on specific cases.

While most respondents (79.2%) understand correctly that capture, release, eating food, and using other products from endangered wild animals is illegal, many respondents (65.8%) do not know that capture, release, eating food, and using other products from endangered wild animal that are raised for the second generation is legal.

59.6% of respondents know how to protect wild animals. However, the percentage of respondents who do not know how to protect wild animals is still high (41.5%).

When finding out that someone in the neighborhood are trading wild animals illegally, 55.4% of the respondents know to whom they should report this crime too.

However, they do not remember or do not know the telephone numbers of those offices, including the free hotline of the Education for Nature (ENV) of Vietnam. The telephone number that is mentioned the most is 113 (Vietnamese Task Force Police).



A water dragon caught in a forest trap
©Bui Huu Manh

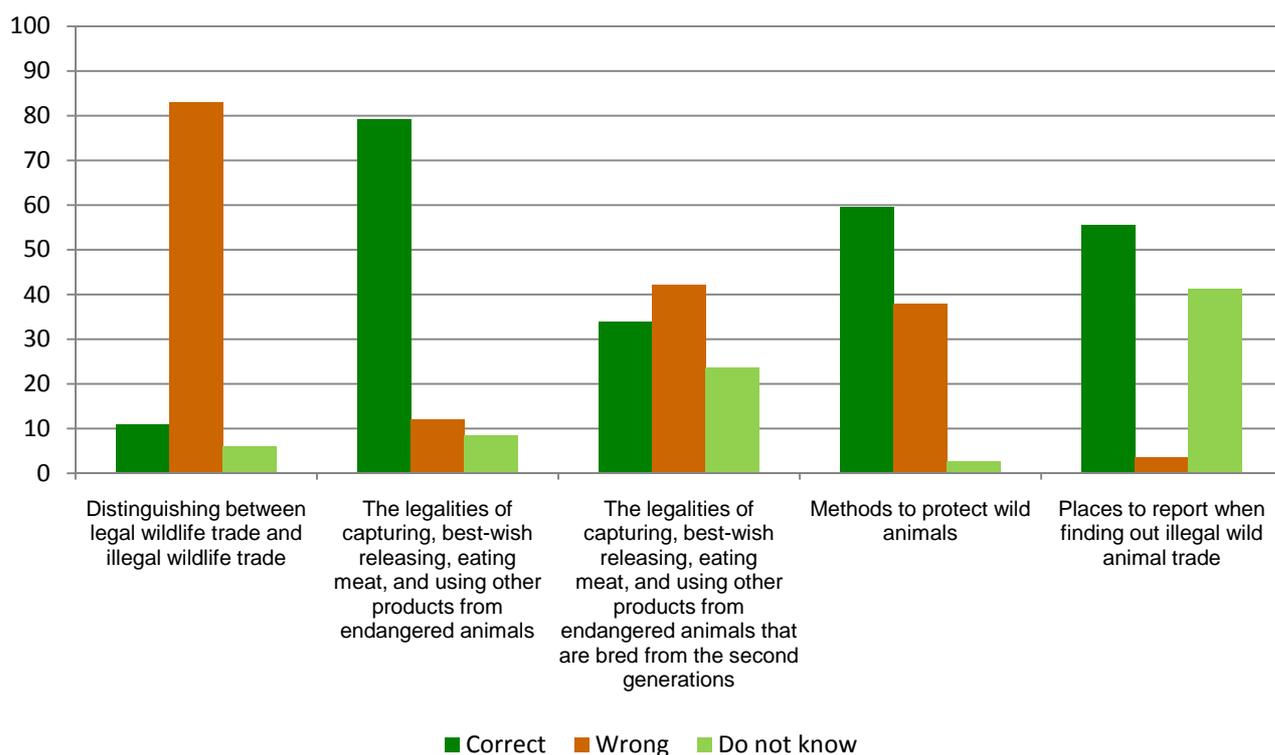


Figure 3.22. Knowledge of the wild animal trade, consumption and protection

Discussion

The residents of HCMC seem to have a good general knowledge of the conservation status of larger animals those are endangered species. This might be the result of education activities about these large animal species. It might also reflect that the residents of HCMC think that only those large animals are endangered and need to be protected.

Residents of HCMC are not aware that their behaviour of wild animal product consumption is the most dangerous threat to wild animals. They think that hunting and trading is the most dangerous threat to wild animals. This could be one reason why they will consume wild animal products in the future.

HCMC residents have a good awareness of the legality's of capturing, releasing, and consumption of wild animals that come from the forest. However, they think that the trading of any wild animal species is illegal. Their incorrect knowledge may be result from a lack of education programs about the wild animal trade. These education programmes, which focus on preventing wild animal trade, do not help people to distinguish between legal trade and illegal trade, therefore the respondents misunderstand that the trading of any wild animal species is illegal.

The majority of respondents are able to point out which is the best method for wild animal protection. However, one of the easiest actions to report wild animal trade crime to the correct offices cannot be carried out because they do not know the correct telephone number. This might be because they do not care about reporting the crimes or they do was not informed adequately about the telephone number to report.



Attitude

Most respondents (81%) have positive opinions and attitude towards the protection of wild animals. They love wild animals and want to see them frequently in the wild. They also think that wild animals play important roles in the ecosystem and enriching human's life.

78.8% of respondents show that they would feel very sorry if the future generations could not see some species in the wild due to extinction. 21.1% of them do not care if a species is extinct or not, they think that animal extinction does not matter because there are still many other wild animals to see.

59.9% of respondents show negative attitudes towards wild animal protection. They think that wild animal protection is important but they cannot do anything to help, or they do not harm the animals and thus they do not have to protect them, or they do not care about wild animal protection. Just 40.7% of respondents show positive attitudes toward wild animal protection and that they can contribute towards protecting wild animals.

46% of respondents are willing to protect wild animals by reporting illegal activities to local authorities, talk to the traders and asking them to stop the trade. However, 38.9% respondents reported that they will not do anything and some respondents (14.8%) have made no decision of what they would do if they find out illegal wild animal trade.

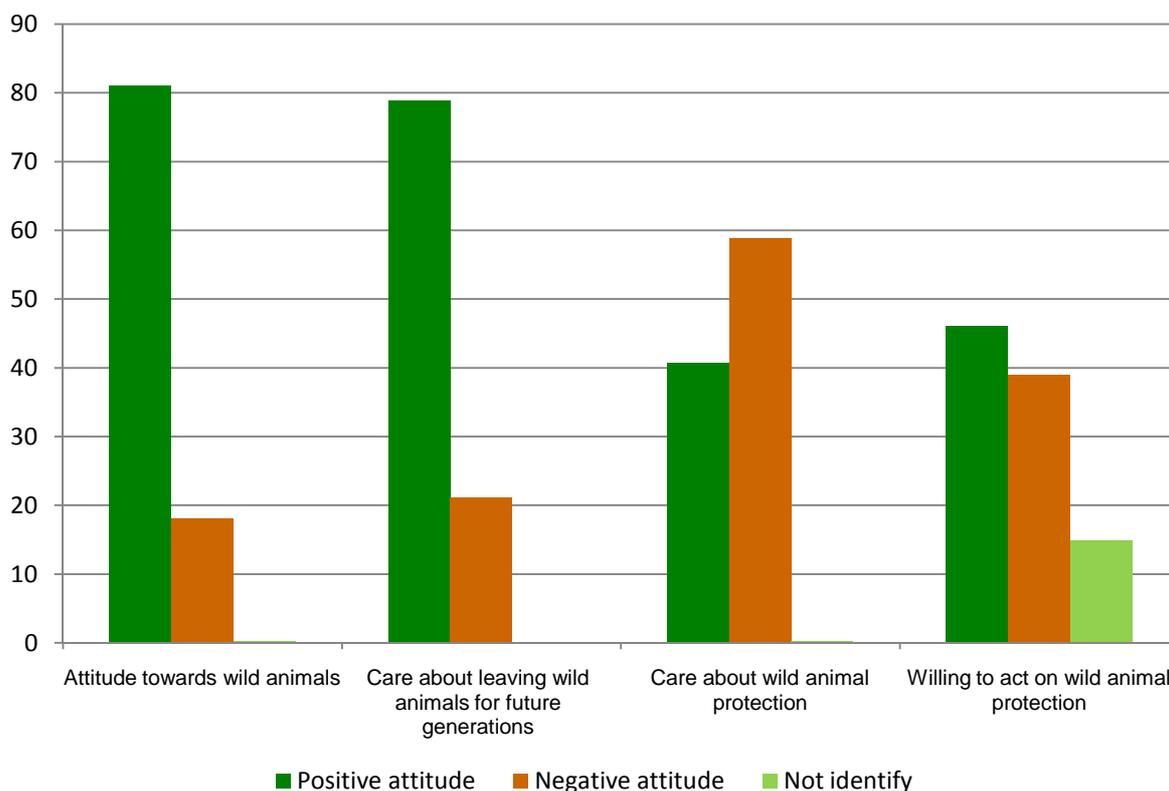


Figure 3.23. Attitude towards wild animals and wild animal protection

Discussion

Most residents have a positive attitude towards wild animals and leaving wild animals for future generations. However, the percentage of respondents who have positive attitudes towards wild animal protection and are ready to protect wild animals is lower.

This might be related to the high percentage of residents who do not know how to protect wild animals. They think that it is an important job but they cannot do anything to help. In reality, each person could protect wild animals by their daily activities such as reporting crimes to local authorities when they see illegal trade of wild animals, or stop using endangered animal products.



Favourite information channel

Results of the survey show that 91.3% of the respondents achieve information through television, therefore, television is their favourite information source. The next channels in turn are printed newspapers, online newspapers and radios. In additions, talking with acquaintances and friends is also a favourite information channel of HCMC residents.

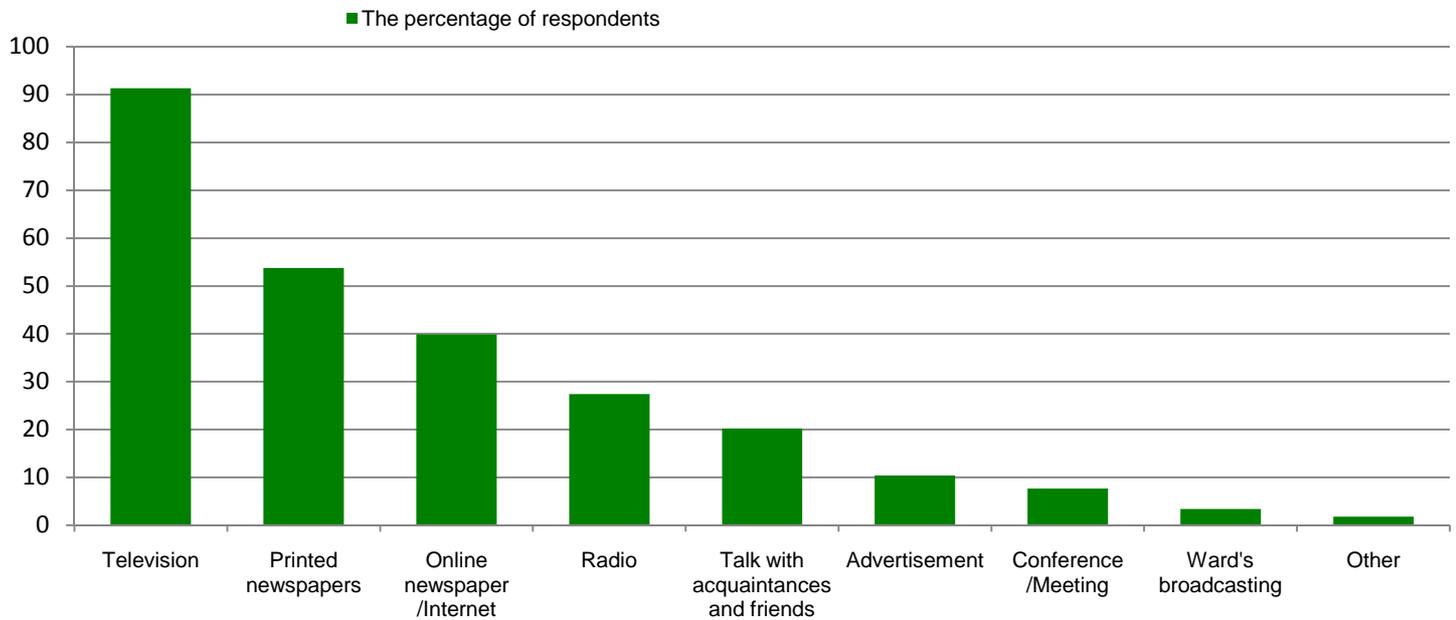


Figure 3.24. Favourite information sources of HCMC residents

Discussion

The education programmes for HCMC residents on wild animal production should make use of their favourite information channels such as televisions, printed newspapers, online newspapers /internet and radios.

Currently, there are not many website in Vietnamese educating the public about wild animal trading and wild animal protection. Some current websites are too academic. Therefore, development of websites to educate the public about wild animals is extremely important.



Bear bile is being taken
©WAR/ Nguyen Vu Khoi



A traded monkey penis
©WAR/ Nguyen Vu Khoi



Results of the student survey

Behaviours of wild animal product consumption

Consumption percentage, purposes and frequency

The survey reveals that 28.2 % of the surveyed students in HCMC have used wild animal products. 31.4% of male students and 25.8% of female students have used wild animal products.

The percentage of students who have used wild animal products in Binh Thanh District and District 1 is higher than those in District 3 and Phu Nhuan District. However, the percentages are not significantly different. This is indicated by the results of the resident survey (Figure 3.25).

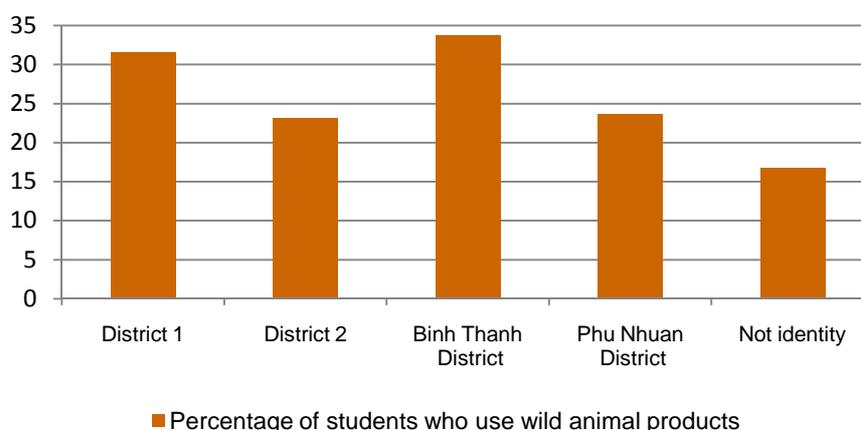


Figure 3.25. Percentage of students who consume wild animal products in different districts of HCMC.

Food accounts for the greatest percentage of wild animal products consumed in HCMC (78.8% of the surveyed students), followed in turn by pets (11.7%), fashion and ornaments (9%), health products (8.3%) and wild animal alcohol(5.8%).

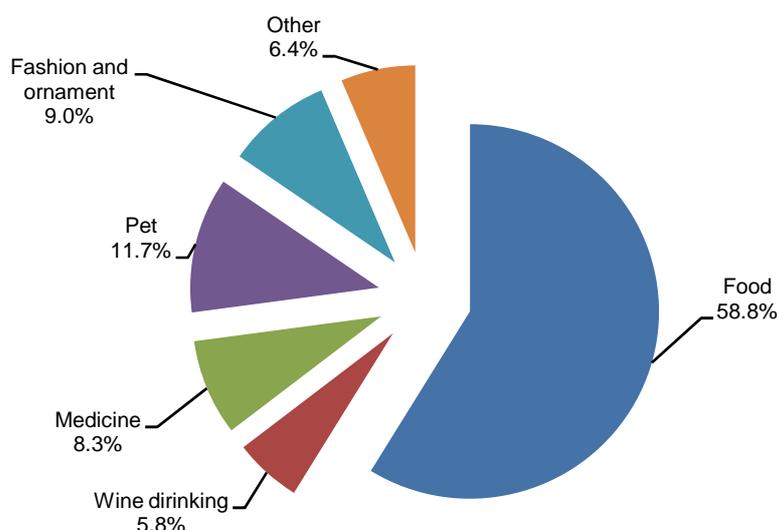


Figure 3.26. Types of wild animal products consumed by the students

30.7% of surveyed students used wild animal products at least three times per year. 69.5% of students used wild animal products up to three times per year.



Species at Risk

The wild animal species that are mostly consumed (average of all consumption purposes) included wild boar, snake, wild chicken, spot-billed duck, lesser coucal, stag/deer, turtles, bear, civet, sea turtle, and python. This is similar to results of the resident survey.

(Figure 3.27)

Species mostly consumed for food include: wild boar, wild chicken, spot-billed duck, lesser coucal, snake, stag, deer, turtle, civet, weasel and sea turtles.

Species mostly consumed as alcoholic drinks include: snake, bear, and python.

Species mostly consumed for medicinal purposes include: snake, bear, python, and stag.

Species mostly consumed for the pet trade include: turtle, monkey, gibbon, langur, loris, eagle, and sea turtle.

Species mostly consumed for fashion and ornament purposes include: tiger, leopard, elephant, eagle, sea turtle, and stag.

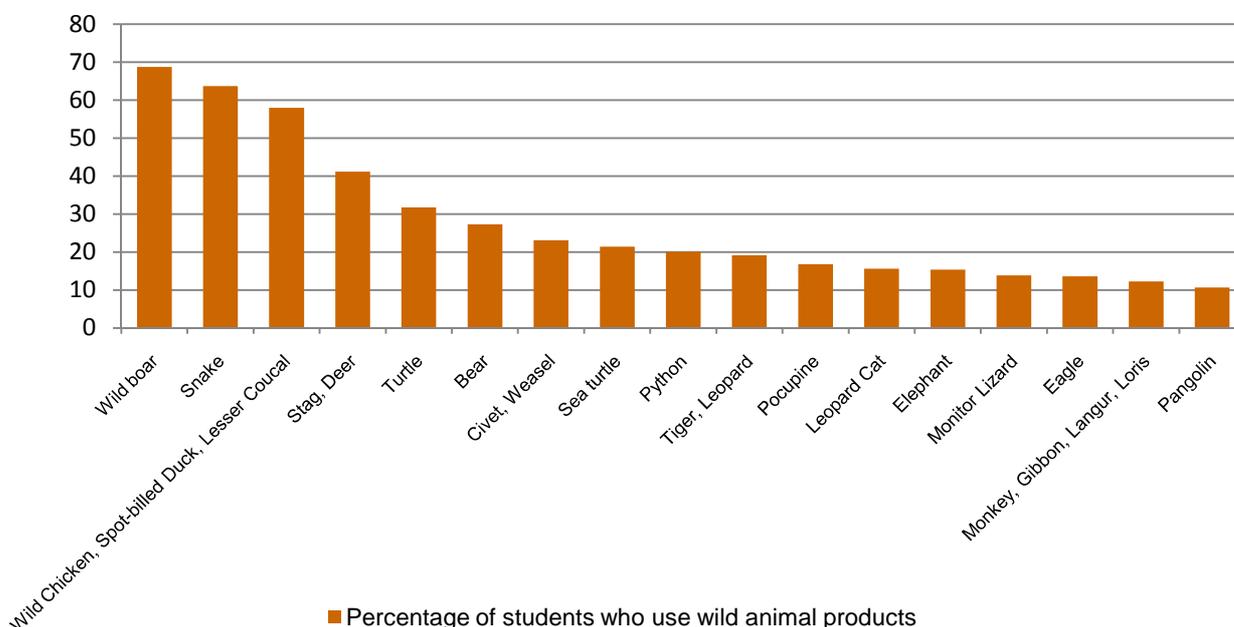


Figure 3.27. Species that are most commonly consumed

Reasons for eating wild animal meat

62.1% of the surveyed students who have consumed wild animal products said that they eat wild animal meat because they want to try a new experience. Other reasons in turn are they feel the meat is tastier, it is good for health or their parents tell them to eat and their parents are able to afford it. (Figure 3.28).

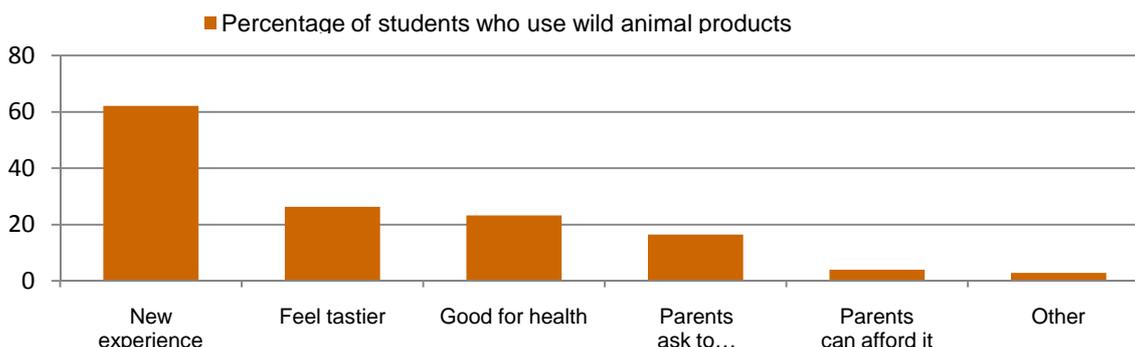


Figure 3.28. Reasons for eating wild animal meats



Occasions and places for eating wild animal meats

Results indicate that students are consuming wild animal meat frequently when they travel with family (44%), or on family events such as birthdays and family meetings (28.6%), or whenever they like, their parents buy it for them (18.3%). The next occasions are holidays and other occasions. (Figure 3.29).

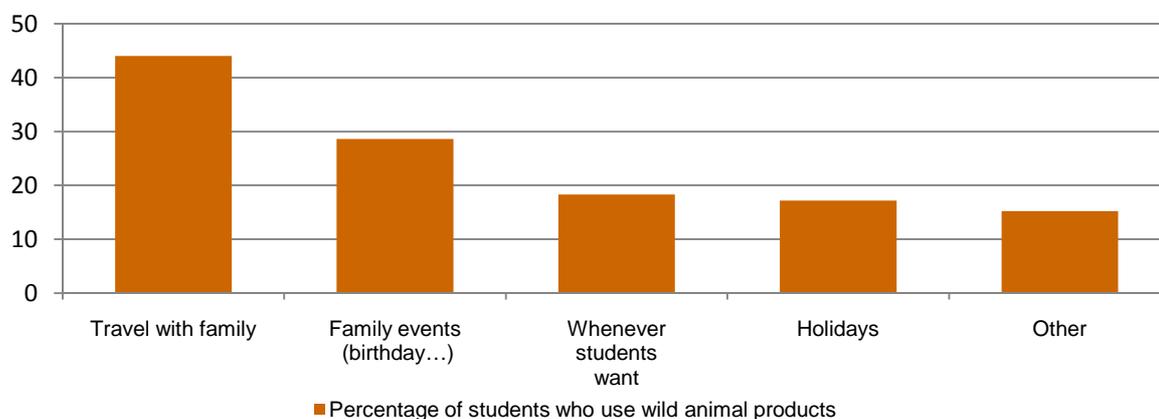


Figure 3.29. Occasions for eating wild animal meats

Places that students eat wild animal meat frequently are specialty restaurants in other provinces (35.1%), at home and in restaurants in HCMC. (Figure 3.30)

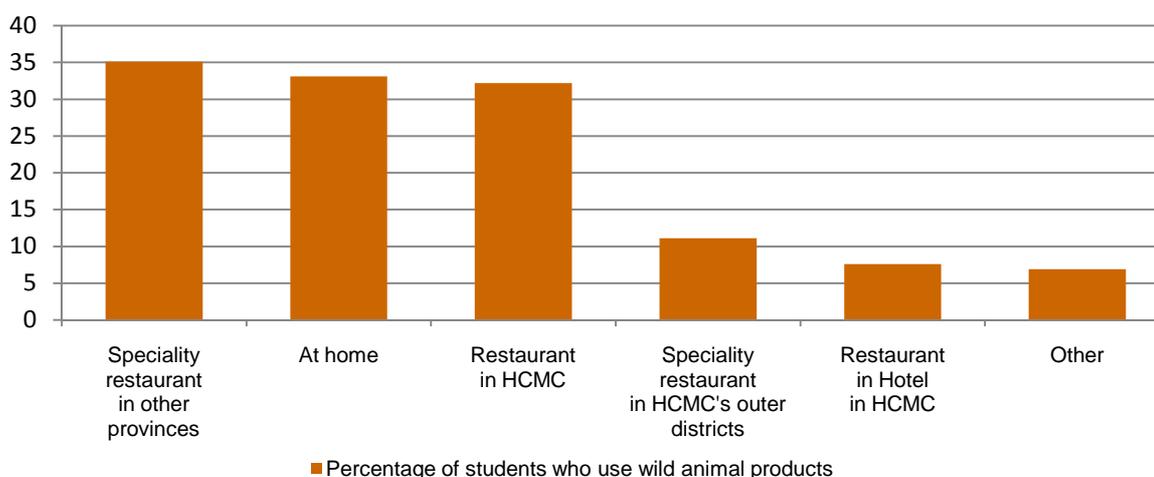


Figure 3.30. Place for eating wild animal meat

Tendency of wild animal product consumption

According to the survey, 78.3% of the students who consumed wild animal products stated that they use wild animal products in 2010 less than before. Most common reasons are that they want to protect wild animals; wild animals are becoming increasingly rare, they have no time, and they are not allowed to use.

Only 17.9% of the students who consumed wild animal products in 2010 more than before because they feel the meat is tastier, good for one's health, and products from wild animals are more attractive and they have occasion to travel with their parents.

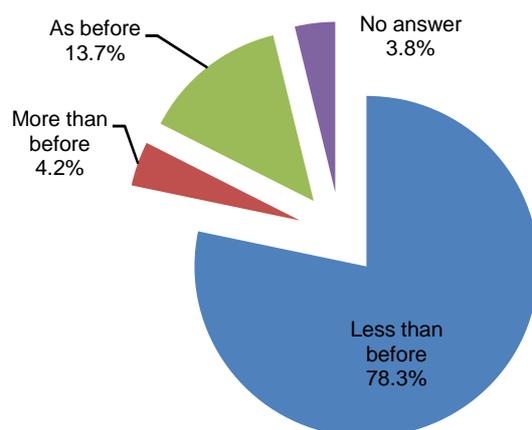


Figure 3.31. Percentage of people consume wild animal products in 2010 compared with before

Most of the students who have never consumed wild animal products (73.5%) answered that they do not eat wild animal meat because they do not like it, they feel it is disgusting or they are afraid of disease transmission. Of those, 29.3% think that it is illegal and 4.6% love wild animals. The rest of those said that their parents do not allow them to use wild animal products, or their parents cannot afford it. (Figure 3.32)

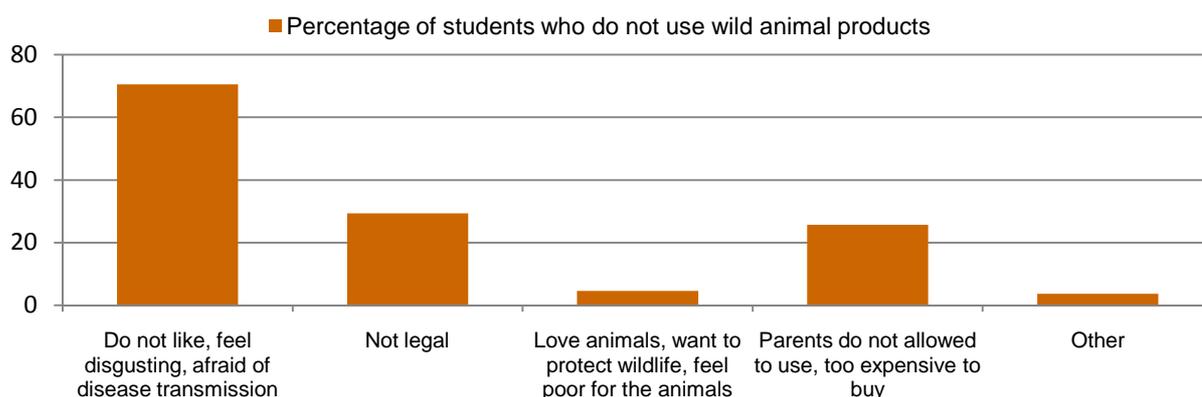


Figure 3.32. Reasons for not using wild animal products.

In the future, only 6.7% of the survey students admit that they will use wild animal products while 56.9% of the surveyed students answered they do not know if they would use it or have not made a decision indicating that these students may use wild animal products in the future. Only 35% of the surveyed students stated that they would not use wild animal products. (Figure 3.33)

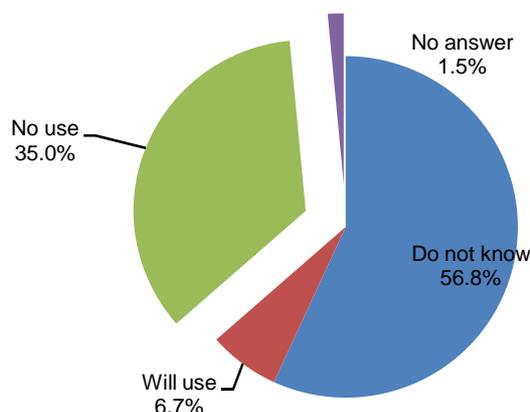


Figure 3.33. Percentage of students using wild animal products in the future

Discussion

The percentage of students who consume wild animal products is smaller than that of the residents. Their parents or the adults in the family influence the consumption of wild animal products among students. Their parents allowing their children to use what animal products they use. Students were allowed to use wild animal products when traveling with their family or at family events. They use the wild animal products that their parents use and eat wild animal meat that their parents consume. The majority of students do not eat wild animal meat because they do not like the taste, they feel it is disgusting and they are afraid of disease transmission. However, also a small percentage of the residents do not eat wild animal meat for similar reasons.

It's not clear that the tendency of wild animal product consumption among students will increase or decrease in the future. This is because many students do not know if they will use wild animal product or not. This is an opportunity to conduct education programs to direct the students so that they will stop using illegal wild animal products in the future.



Alcohol with snake and other species sold in a popular tourist site of HCMC
©WAR/dohuyen



Knowledge and attitude

Knowledge

Knowledge about endangered species, ecosystems and the roles of wild animals

According to the survey, 46.2% of surveyed students know what an endangered species is. Year 9 students answered better than those of other years. Of surveyed students, 54.6% answered correctly about conservation status of wild animals. They answered wrong about rarity levels of small species such as, wild chicken, spot-billed duck, lesser coucal, wild boar, wildcat, python, and cobra. Students have a good knowledge about the conservation status of larger species such as elephant, tiger, bear, leopard and sea turtles. Just 34.8% of surveyed students stated that small animal species also play an important role in nature. Year 9 students again showed the best knowledge about this.

Most students have a good knowledge about roles of wild animals (99.1% of students answered correctly) and role of them enriching human lives. (67.9% of students answered correctly)

Generally, Year 9 answered more correctly than other years. Year 6 students had the lowest correct answers to the questions asked.

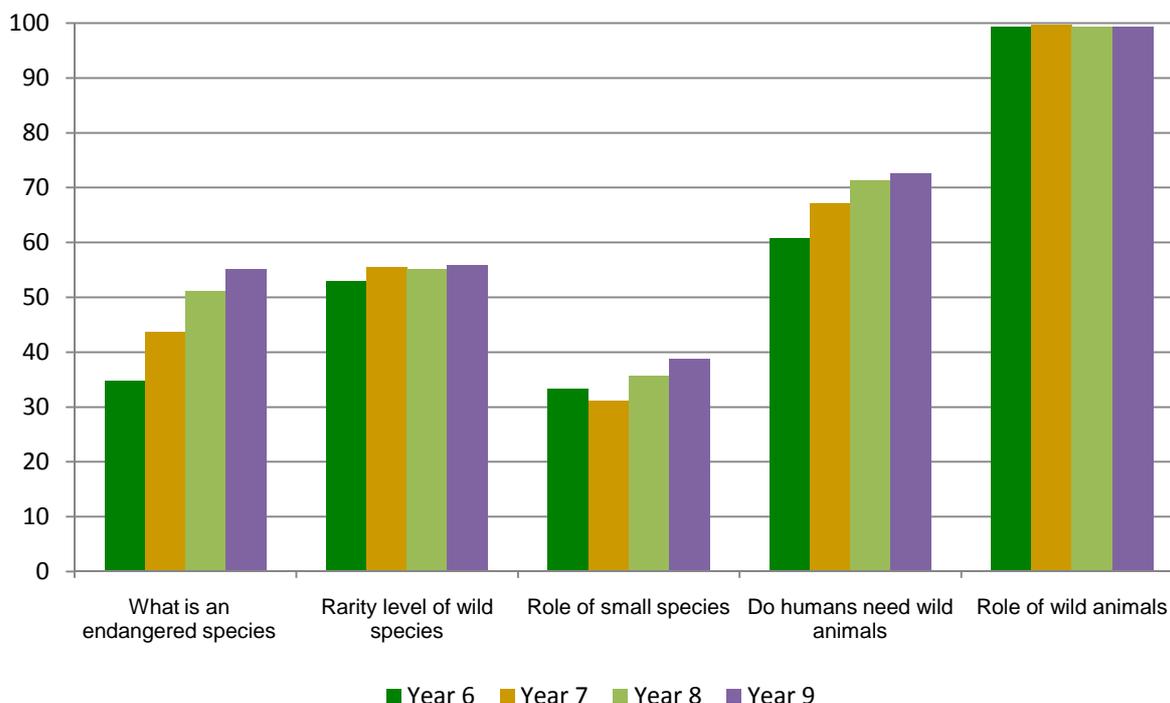


Figure 3.34. Percentage of students with correct answers from different years about rare animal species, ecosystems and role of wild animals

Knowledge about threats towards wild animals

Most students stated that the illegal wild animal trade is the most dangerous threat to wild animals (87.2%). The next threats are illegal trading of wild animal products (75.1%), deforestation (71.6) and environmental pollution (57.1%). After that consumption of wild animal meats and keeping wild animals as pets.

Similarity to resident results, students think that wild animal product consumptions is not the largest threat of the wild animals, compared to hunting and trading.

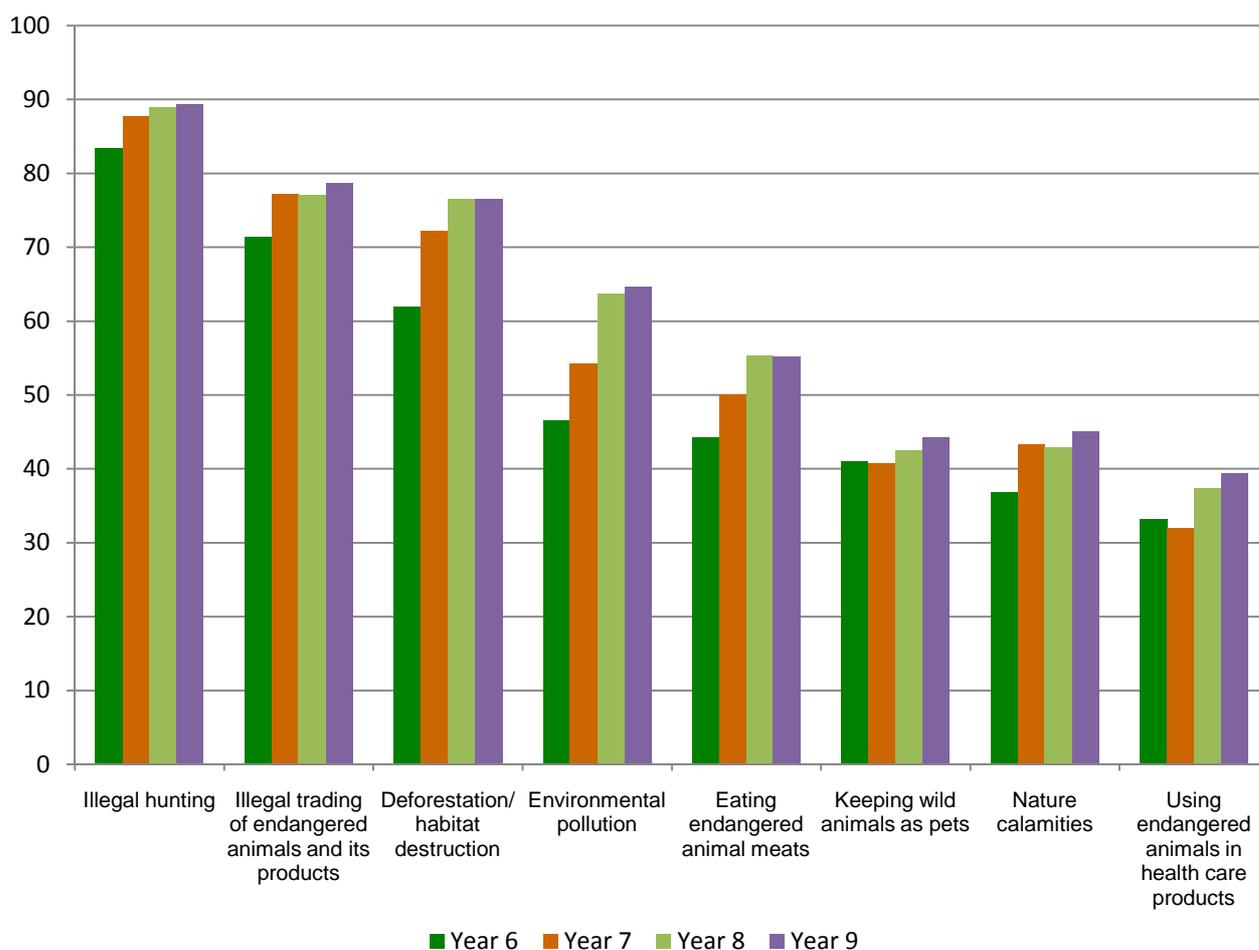


Figure 3.35. Percentage of the students with correct answers about the threats to wild animals

Knowledge about wild animal trade, consumption and protection

Just 13.7% of surveyed students understood about wild animal trade correctly. The rest of them stated that trading of any wild animal species is illegal. In reality, wild animal trade can be legal or illegal depend on specific cases.

Most of surveyed students (74.5%) answered correctly that the capture, release, and consumption from endangered wild species is illegal. However, just 13.8% of surveyed students said correctly that capture, release, and consumption of any product from endangered wild animals that are raised from the second generation is legal.

62.2% of surveyed students know how to protect wild animals.

When the students find out about illegal trading of wild animals, 44% surveyed students know to whom they should report too. However, most of them do not remember or do not know the telephone number, including free hotline of the Education for Nature of Vietnam (ENV). The telephone number, most commonly mentioned is 113 (8.11%)

Knowledge about wild animal trade, consumption and protection of Year 9 students is better than other years. Figure 3.36.

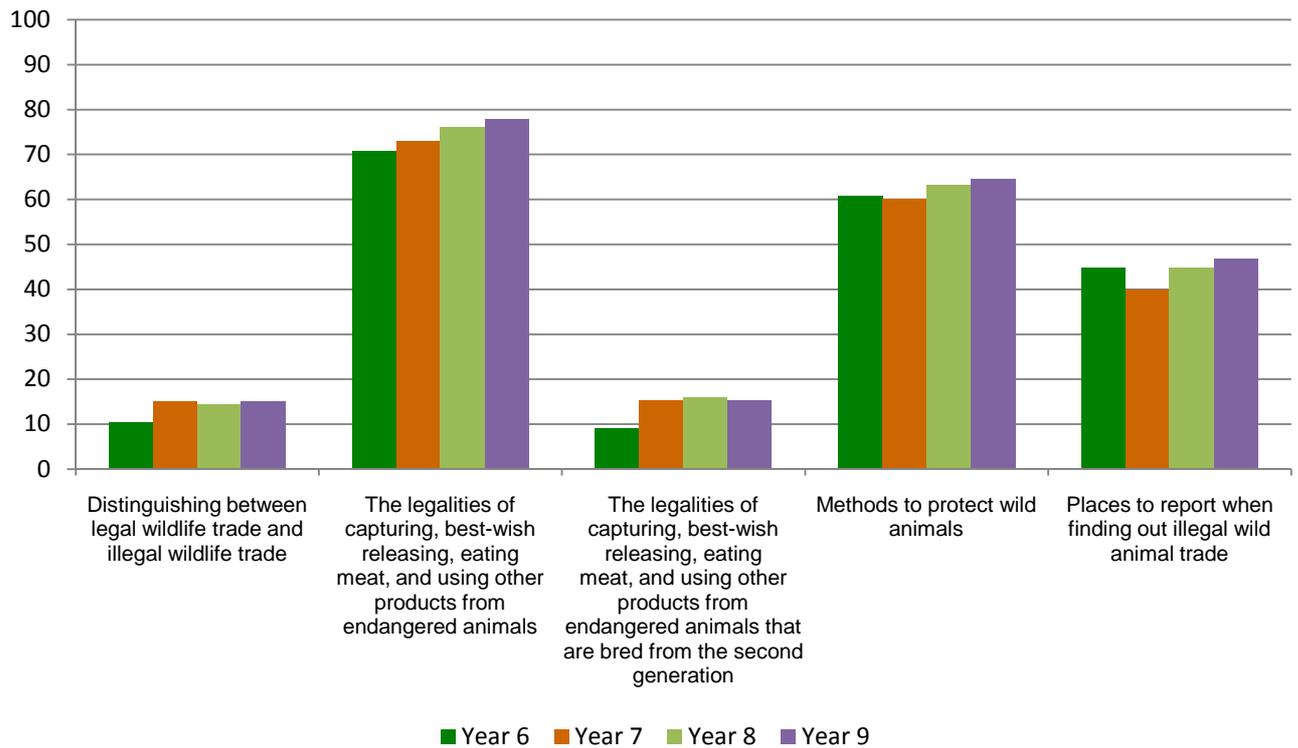


Figure 3. 36. Percentage of students with correct answers about the wild animal trade, consumption and protection.

Discussion

The results of the student survey are similar to those of the resident survey. The data shows that both the residents and students have a high correct percentage rate to some of the posed questions. Most of this knowledge is not included in the official curriculum of the secondary school students. This shows that knowledge about wild animals and wild animal trade of students is from their families. Education programmes about wild animals should focus not only students but also residents and families in order to improve the student knowledge.

The percentage of students answer correctly that capture, release, and consumption of any product from endangered wild animals that are raised from the second generation is legal is very low. They think that trading of any animal species is illegal. This shows it is essential to have education programmes for the students in order to educate them on using wild animal products sustainably and legally so that they can make educated decisions towards wild animals in the future.



A trapped freshwater turtle
©WAR/ dohuyen



Attitude

Most of the surveyed students (86.2%) have positive opinions about wild animals. They love wild animal species and want to see them frequently in the wild. They also think that wild animals play an important role of the forest and enriching human lives.

Of the surveyed students, 78.1% express that they would feel sorry and sad if a wild animal species was extinct and 21% admit that they it's alright if some animal is extinct and they do not care about wild animal extinction.

64.3% of surveyed students have a positive attitude towards wild animal protection. They stated that they could contribute to protecting wild animals.

Many students (84.2%) are willing to protect wild animals by reporting to the local authorities or wildlife protection organisations, or they will talk to the trader and ask them to stop trading wild animal products illegally.

In general, the attitudes of Year 9 towards wild animals and their protection are not as positive as those of other years, especially Year 6.

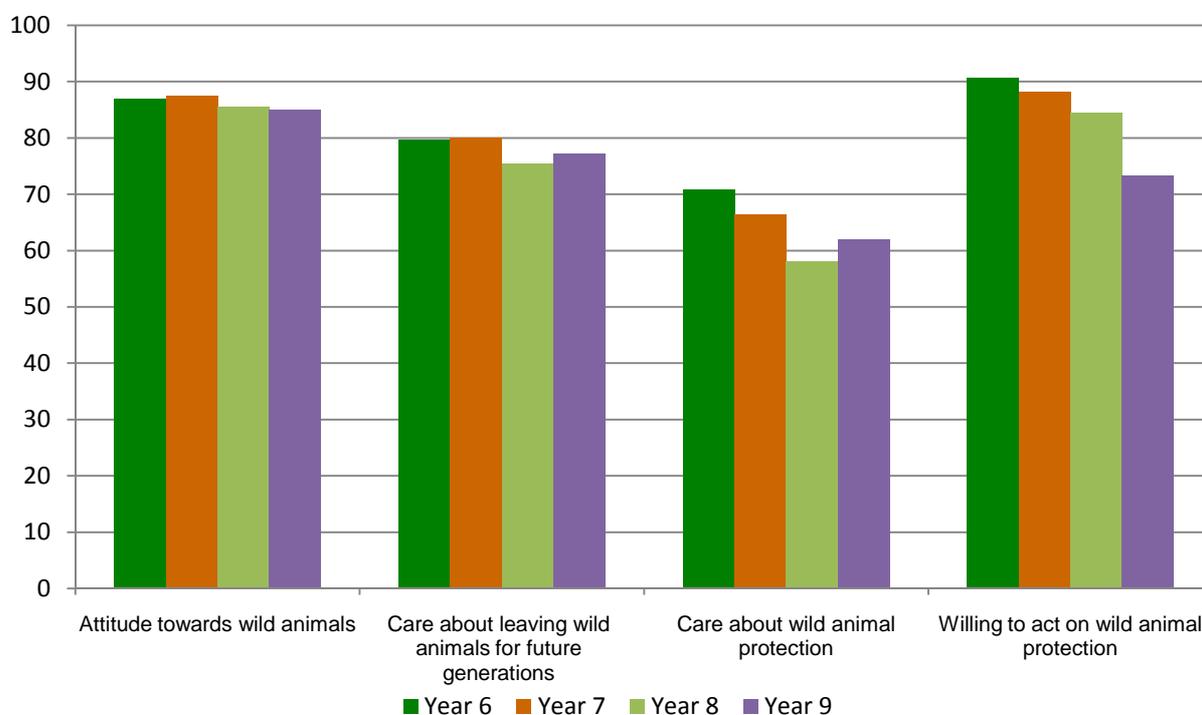


Figure 3.37. Percentage of students with a positive attitude towards wild animal protection

Discussion

Generally, the attitudes of students towards wild animals and wild animal protection are more positive than those of residents, especially they're attitude towards wild animal protection and their willingness to act to stop illegal wild animal trade. Among surveyed students, Year 9 has better knowledge than other years but their attitude towards wild animal protection is not as positive as other years.

This might be related to psychology characteristic of the age and life experiences. Older students have more things to consider to than younger students. Adults also have more considerations than students.

Education programs highlighting wild animal protection should focus not only providing knowledge and skills for young generations, but also fostering attitudes, and caring for older target groups.



Favourite activities of students

The results of the survey reveal that the most favourite education activity about wild animal protection of students is to participating in a two-day trip to the forest. The next activities are to participate in an education exhibition that has pictures, models, sounds of wild animals and games on wild animal protection. The least favourite education activity for students is to watch a puppet show about wild animals and to develop and perform a play about wild animals. (Figure 3.38)

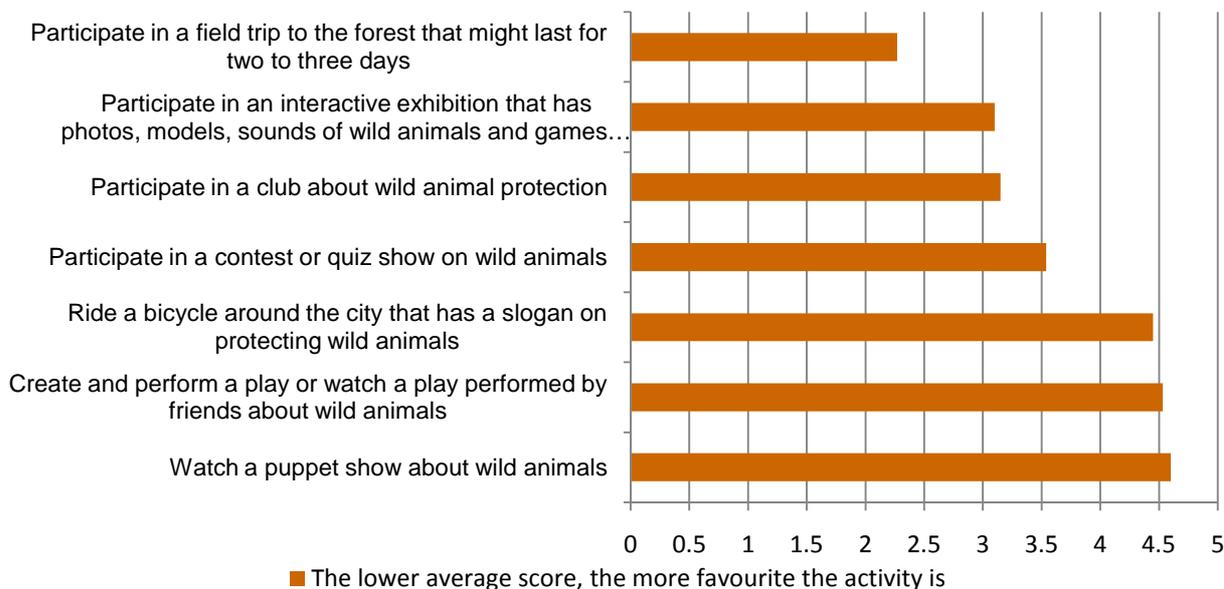


Figure 3.38. The order of favourite activities of students

Out of class time, most students usually watch TV (78.9%), chat with friends (48.7%), go out with friends, play online games, read online newspapers and printed newspapers and listening to music.

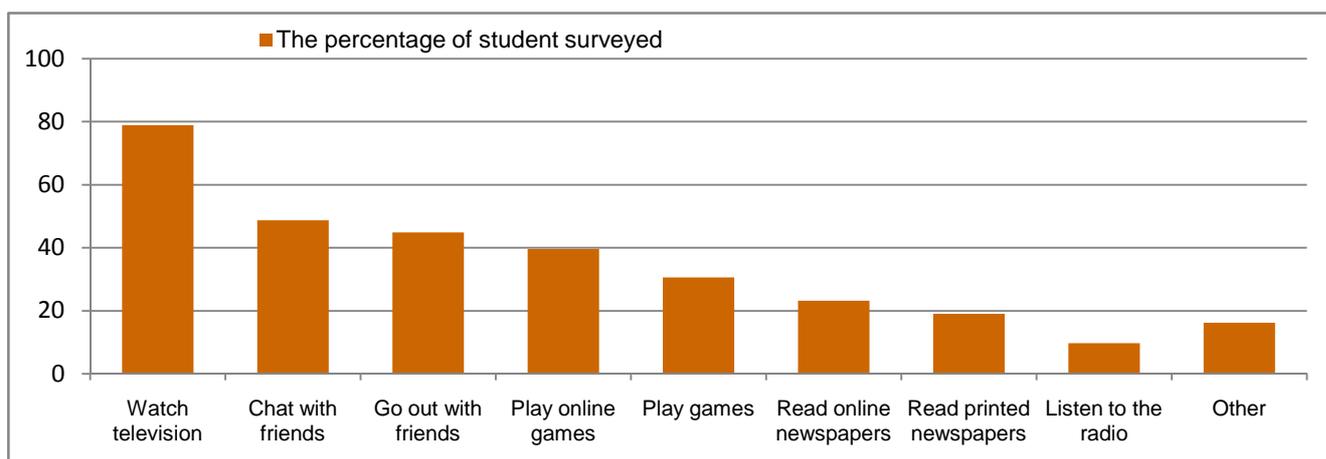


Figure 3.39. Favourite activities of students out of class time

Discussion

Education activities for students should make use of their favourite activities, such as fieldtrips and, education exhibitions with exciting games.

Television programmes that have messages about wild animal protection for students are also an effective education tool. Online games and online newspapers with content, information and images that are suitable for students and have messages about wild animal protection are also activities that the students will welcome.



Chapter 4.

Conclusions and Recommendations

Conclusions

1. The results of resident and student survey help us to understand more clearly about their behaviour, knowledge and attitude towards wild animal consumption and wild animal protection.
2. Although residents of HCMC are likely to consume more wild animal products in the future, there are opportunities to change their behaviour of wild animal consumption in a sustainable way. Intervenes include different programs such as communication programs, education and training programs to enhance skills, encouragement of friendly behaviours towards wild animals and enforcement programs.
3. Adults in their family currently influence the consumption of wild animal products of students. However, as they have a more positive attitude towards wild animal protection than adults, they are subjects for change in the future if they are educated effectively and if they have opportunities to consume wild animals sustainably and legally in the future.

Recommendations

Stopping illegal consumption of wild animal products via communication and education programmes.

Wild animal product consumers create the force for illegal hunting and trading and in turn are pushing animals to the brink of extinction. Education programmes for consumers are a long term and sustainable solution in order to change their behaviour and attitudes so that they can make wise decisions towards stopping the illegal solution of wild animal consumption.

Adults

Forms of communication and education programs

- Make use of mass media tools such as television, newspapers and radio to educate residents and students about wild animal protection.
- Develop and maintain websites with wild animal education content for the general public. Internet is becoming more and more popular among the public. Currently information about wild animals in Vietnamese on the internet is either not adequate or too academic. Articles on online newspapers normally reflect facts and events; they do not focus on providing knowledge and skills about wild animal protection.
- Develop and spread channels for selected audiences to ask about wild animal trade and consumption. Currently, not many residents and students know who they should report to about wildlife crime. The free hotline (1800 1522) of the Education for Nature of Vietnam is available all over the country but most residents and students do not know about it.
- Communication and education activities should be conducted frequently and focus on holidays when residents tend to use more wild animal products.



- Communication and education activities should focus on target groups that tend to consume more wild animal products such as middle-aged men (36-45 years old) with higher education level and higher working positions.
- Communication and education programmes should target the attitude of the residents so that they have more proper attitude toward wildlife protection.

Contents of communication and education programmes

These programmes should help the residents to have a better understanding and more positive attitude towards wild animal protection, including:

- Helping them understand about wild animal trade and that some wild animal products are sustainable and legal and they are allowed to use.
- Helping them understand clearly about the conservation status of species that are currently consumed more frequently.
- Helping them understand the consequences of consuming wild animal products illegally and that consumption of illegal wild animal products is the main reason for animal becoming extinct, rather than hunting or trading. Help them to eliminate the thinking that “the wild animal is killed already, if I do not consume it someone else will consume it anyway”.
- Helping them so that they are able to say NO and know how to say NO when they are invited to consume illegal wild animal products.
- Helping them change their values toward wild animal products, do not regard wild animal products as a specialty to invite guests on special occasions.
- Helping the residents to know about places to report on illegal wild animal trade and who to report crimes too. It is important to create a mechanism to encourage the residents to report on wild animal crime.

Secondary school students

Types of communications and education programs

- Organise field trips for the students. It could be to discover the forest, visit animals at the wildlife rescue stations. These field trips will help students to have better knowledge and skills on wild animal protection and also a better attitude towards wild animals and the environment.
- Interactive education exhibitions with diverse displays and games will also be an effective activity for the students.
- Educational website, games and television shows with messages about wild animal protection are also effective activities.
- Education and communication programs need to fit in with study schedule of the students.
- Education communication programmes need to be implemented adequately and continuously to create changes in the behaviour future generations.
- Integrate content of wild animal protection into nationwide curriculum.

Contents of communication and education program

Adults in their family orientate the consumption of wild animal products of students. However, the knowledge that they collect will also impact the adults. Education programmes should focus on the following content:

- Helping the students to understand clearly about wild animal trade, and that wild animal trade could be legal in many cases. To encourage them only consume legal and sustainable wild animal products.



- To help them understand clearly about the conservation status of species those are consumed more frequently.
- Helping them to be aware that consumption of wild animal products is the most dangerous threat to wild animals. The consumption creates a demand for wild animal trading and hunting and therefore pushing wild animal species towards extinction.
- Helping them understand carefully about consumption of wild animals among adults and its consequences. Help them to think critically about wild animal consumption and how to react when an adult invites /allows them to use wild animal products.
- Helping them understand ways to protect wild animals through their daily activities especially helping them to know places and telephone numbers to report when they find out illegal wild animal trading.

Stopping illegal consumption of wild animal products via introduction of sustainable wild animal products.

As the tendency of wild animal product consumption will increase in the future, it's necessary to research and introduce alternative products so that the residents are able to access sustainable and legal wild animal products. Currently, wild animal farms are becoming popular. There are about 10,000 animal farms with about 3 million of wild animals being raised throughout the country. Some wild animal species are raised successfully and well sold in the market includes python, crocodile, long-tail monkey, and snake.

The research and introduction of alternative medicines for wild animal products are also helpful in decreasing consumption demand toward wild animal based medicine and thus help to protect endangered animals.

Stopping illegal consumption of wild animal products via government enforcement and rescue centres.

The law system relating to wild animal protection in Vietnam is quite adequate. It is important to enforce these laws and prosecute wildlife traders.

Enforcement is immediate and an essential action to eliminate illegal wild animal trading and hunting. Different bodies should cooperate closely to enforce the laws effectively.

During law enforcement, many animals need to be rescued, rehabilitated and released back to the wild. Rescue Centres help to save the animals right away from illegal trade and hunting. The development of wild animal rescue stations is an efficient tool for enforcement.

Stopping illegal consumption of wild animal products via conservation programs

Together with all the above-mentioned activities, in-situ and ex-situ conservation programmes aim to recover the populations of endangered species and are effective in protecting wild animals.

Future activities

This research is the first effort to understand more clearly the consumption of wild animal products of HCMC residents and the younger generation. It is expected that these results will be used actively in the efforts that aim to minimize and stop illegal consumption of wild animal products in HCMC. In the future, further research should be conducted to update the situation of wild animal product consumption. Understanding the consumption situation is a strong base for effective conservation of wild animals.



Appendix

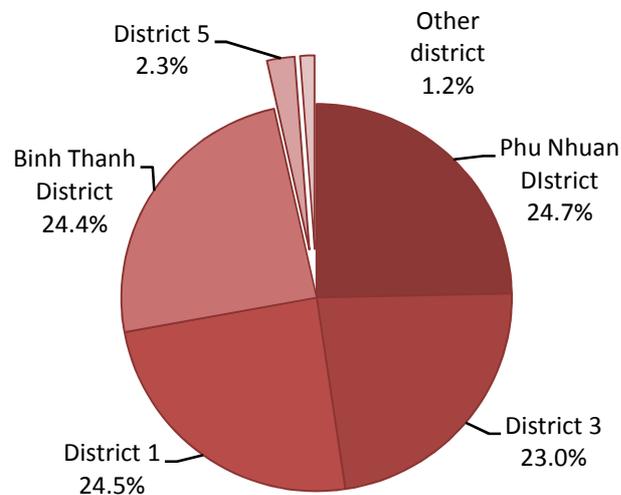
Appendix 1. Description of the respondents

Residents

Gender

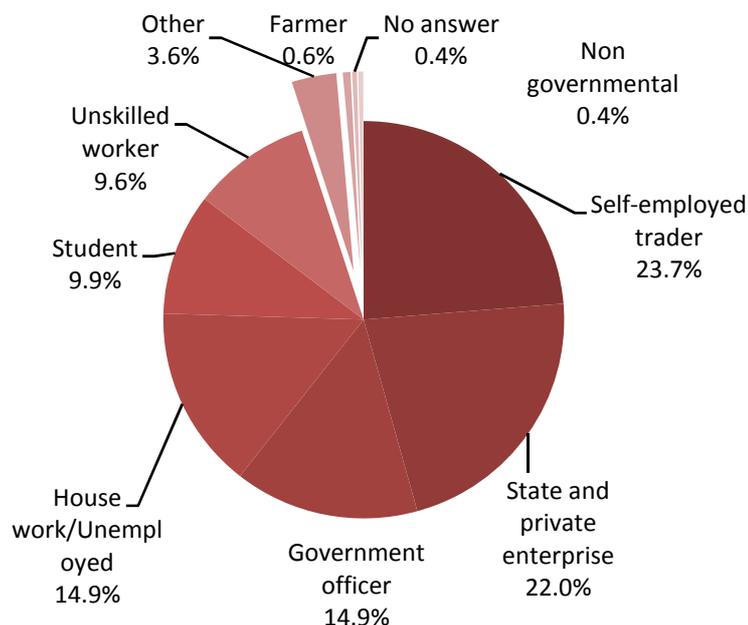
Men account for 49.2% (2002 people) of the survey persons, while women account for 50.2% (2038 persons). The rest are not identified (0.6%).

Survey district



The percentage of surveyed residents in different districts

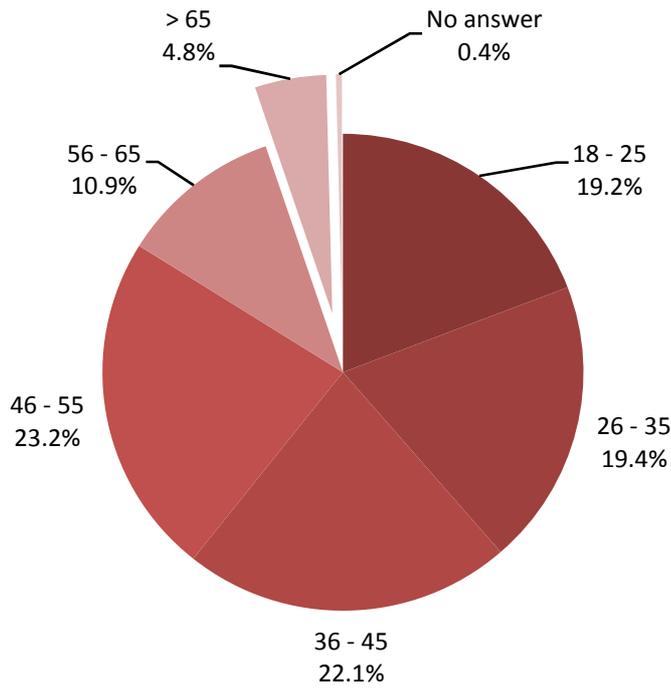
Profession structure



Profession structure of the surveyed residents

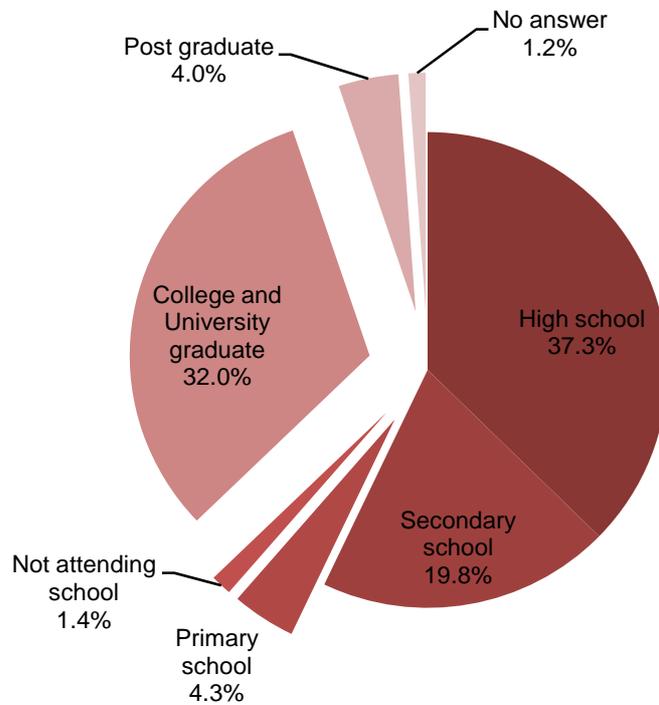


Age



Structure of age groups

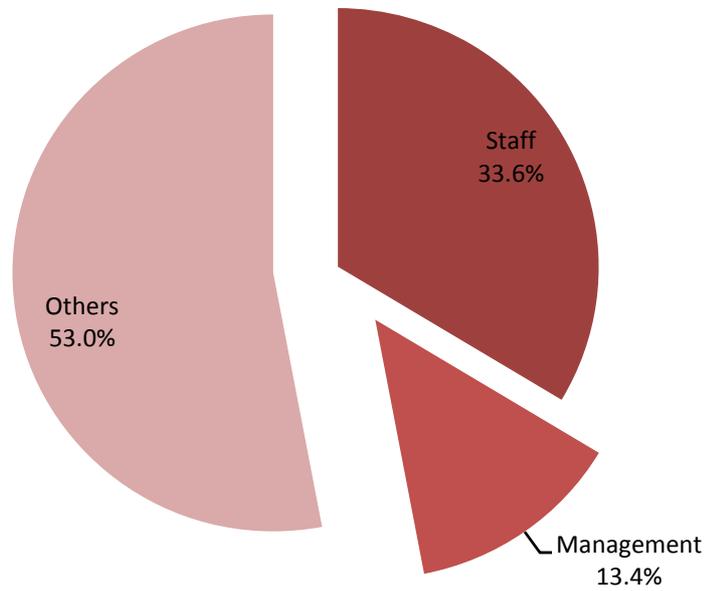
Education levels



Structure of educational levels



Working positions



Structure of working positions

Students

The survey was carried out with 3,562 students in 34 secondary schools in four districts: District 1, District 3, Phu Nhuan District, Binh Thanh District and members of “I love nature” club (aged from 12 -15 years old) of Khan Quang Do Magazine (District 3)

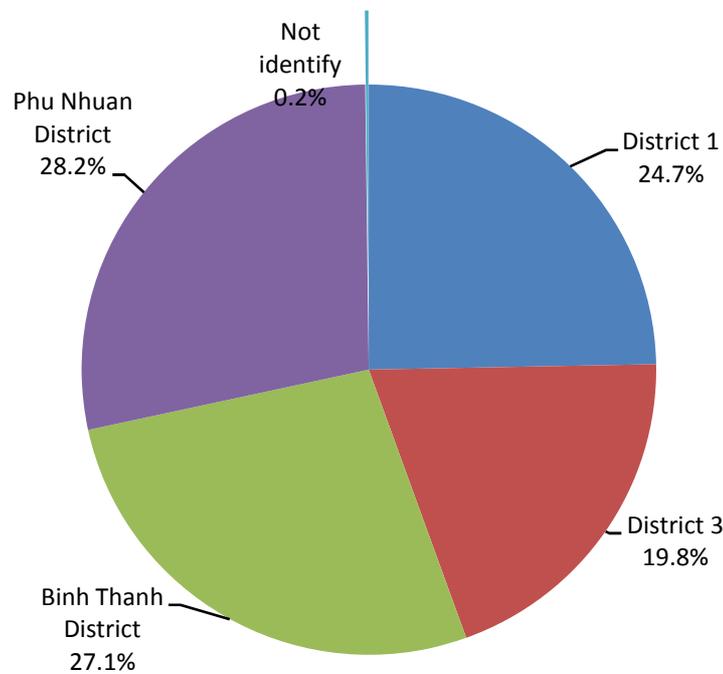


Figure 2.4. The percentage of surveyed students in different districts


List of surveyed schools

No	Secondary School	The number of students	%
I	District 1	879	24.7
1	Chu Van An	173	4.9
2	Dong Khoi	169	4.7
3	Duc Tri	188	5.3
4	Dong Da	1	0.0
5	Van Lang	165	4.6
6	Vo Truong Toan	183	5.1
II	District 3	705	19.8
7	Bach Đang	139	3.9
8	Ban Co	176	4.9
9	Doan Thi Diem	138	3.9
10	Kien Thiet	102	2.9
11	Le Van Tam	1	0.0
12	Luong The Vinh	132	3.7
13	Dong Da	1	0.0
14	"I love nature" club	16	0.4
III	Binh Thanh District	967	27.1
15	Ha Huy Tap	189	5.3
16	Le Van Tam	185	5.2
17	Nguyen Van Be	164	4.6
18	Phu My	156	4.4
19	BinhLoi Trung	11	0.3
20	Binh Quoi Tay	11	0.3
21	Cu Chinh Lan	12	0.3
22	Cuu Long	12	0.3
23	Dien Bien	11	0.3
24	Dong Da	164	4.6
25	Rang Dong	6	0.2
26	Thanh Da	10	0.3
27	Truong Cong Dinh	12	0.3
28	Yen The	12	0.3
29	Lam Son	12	0.3
IV	Phu Nhuan District	1005	28.2
30	Cau Kieu	178	5.0
31	Chau Van Liem	208	5.8
32	Ngo May	117	3.3
33	Ngo Tat To	166	4.7
34	Song Da	145	4.1
35	Doc Lap	191	5.4
	Not identify	6	0.2
	Total	3562	100.0



Appendix 2. Questionnaire of the resident survey

In order to learn the tendency and opinion of HCMC residents on using wild animal products, WAR invites you to participate in this survey and share your ideas.

Your answers are very useful for us in developing appropriate communication programmes for school children and the public.

ALL your answers will be kept secret.

We are looking forward to your cooperation. Thank you very much.

Survey Questions

Please mark (X), circle or fill your answers in on the following questionnaire:

1. **Have you ever consumed food, health products, and/or liquors or used ornamental products obtained from wild animals?** (tick one)
 - a. **Yes.** Please go to question 2, and pass question 9.
 - b. **No.** please go to question 9
2. **Can you please mark the wild animal products you have used and the respective species of the product** (mark any that apply)

No	Species name	Eat meat	Drink wine	Medicine	Pet	Fashion/ornament	Other purposes (Specify)
1.	Civet/Weasel						
2.	Eagle						
3.	Wild Chicken, duck, birds						
4.	Bear						
5.	Wild boar						
6.	Tiger/Leopard						
7.	Deer, Stag						
8.	Primate						
9.	Monitor lizard						
10.	Leopard cat						
11.	Porcupine						
12.	Snake						
13.	Marine turtle						
14.	Fresh water turtles						
15.	Pangolin						
16.	Python						
17.	Elephant						
18.	Don't remember						
19.	Other (Specify):						



3. **How often do you use wild animal products** (mark any that apply)

Using	Scarcely	Twice per year	Once per month	Once per week	More than once per week
Eat meat					
Drink wine					
Medicine					
Pet					
Fashion and ornamental					
Other purpose (Specify)					

4. **How do you use wild animal products in 2010, compared to previous years?** (Tick one)

- a. Less than before b. More than before c. As before d. Not using at all

Please explain:

.....

5. **On what occasion do you eat wild animals for food?** (mark any that apply)

- a. On field trips to provinces d. Whenever I like
b. Working events e. Holidays
c. Family events f. Other (Specify):

6. **Where do you normally eat wild animals or drink wild animals alcohol?** (mark any that apply)

- a. At home d. Specialty restaurant in HCMC
b. Restaurant in HCMC e. Specialty restaurants in other provinces
c. Restaurant in Hotel in HCMC f. Other (Please specify):.....

.....

7. **What are the reasons you eat wild animal food?** (mark any that apply)

- a. Invited by others f. Your children want to eat it
b. Feel tastier g. Fashionable
c. Good for health h. Affordable
d. New experience i. Other (Specify):

.....

8. **Do you mind choosing alternative products for wild animals**

- a. Yes b. No c. I don't know

9. Only if your answer is NO for question 1. **What are the reasons you do not use wild animal products?** (mark any that apply)

- a. No interest e. Adverse ecological impacts
b. No opportunity f. Disease transmission
c. Too expensive g. Disgusting
d. Not legal h. Other (Specify):

.....

10. **Do you use wild animal products if you are invited?**

- a. Yes b. No c. I don't know yet



11. In the future, do you think that you will use wild animal products?

- a. Yes b. No c. I don't know yet

12. In your opinion, what is an endangered species? (mark one)

- a. Animals that are threatened of being eaten by other animals. d. Animals that can disappear forever from the Earth.
b. Animals that are dangerous and we should stay away. e. I don't know.
c. Animals that are slaughtered by humans. f. Other (Specify):
-

13. In your opinion, which of the following animals are endangered species? (Check one)

No	Species name	Endangered species	Not endangered species	Don't know
1.	Crocodile			
2.	Civet/Weasel			
3.	Eagle			
4.	Wild Chicken, duck, birds			
5.	Bear			
6.	Wild boar			
7.	Tiger/Leopard			
8.	Deer, Stag			
9.	Primate			
10.	Monitor lizard			
11.	Leopard cat			
12.	Porcupine			
13.	Snake			
14.	Marine turtle			
15.	Fresh water turtles			
16.	Pangolin			
17.	Python			
18.	Elephant			

14. Small animals in the forest such as mosquitoes and terrestrial leeches are not important to the humans.

- a. Correct b. Not correct c. I don't know

15. People can live without animals. This is proved by the fact that many animals have disappeared forever but people are still fine.

- a. Correct b. Not correct c. I don't know



23. **What do you think about wild animals?** (mark one)

- a. I love wild animals, I want to see them more often
- b. I am scared of wild animal because they can transmit diseases.
- c. I do not care about wild animals because it has nothing to do with my life.
- d. I think that wild animal play an important role in human lives.
- e. There are many wild animals, humans can use them as much as we want.
- f. Wild animals are dangerous to humans.
- g. Other (specify):

24. **What do you think if your children cannot see some wild animals because they are extinct?** (mark one)

- a. Does not matter, there are other wild animals to see.
- b. Sorry, sad.
- c. Normal.
- d. I do not care.
- e. Other (Specify):
.....

25. **What do you think about protection of wild animal?** (mark one)

- a. Protecting wild animals is an important job but I cannot do anything to help.
- b. I do nothing that harms wild animals, thus, I do not have to protect them.
- c. I can contribute to protecting wild animals
- d. I do not care
- e. Other (specify):
.....

26. **What will you do when you find out that someone in your neighborhood is trading wild animals illegally?** (mark one)

- a. Do nothing
- b. Report to local authorities
- c. Talk to the trader about wild animals and ask them not to trade wild animal illegally.
- d. I don't know
- e. Other (Specify):

27. **Who will you call when you see wild animals that are being trading illegally?** (Please mark and fill the telephone number)

- a. Mobile team, HCMC Forest Protection Department: _____
- b. People's committee of ward: _____
- c. WAR (Wildlife At Risk): _____
- d. ENV (Education for Nature Vietnam): _____
- e. Other (specify the name and the number):
- f. I don't know

28. **From which channels, do you always receive information and knowledge?** (Mark any that apply)

- a. Television
- b. Radio
- c. Printed newspaper
- d. Online newspaper/Internet
- e. Ward's speaker
- f. Conference/meeting
- g. Talking with others
- h. Advertisement
- i. Others (Specify):
.....



Appendix 3. Questionnaire of the student survey

Hello!

In order to learn your opinion about using wild animal products, WAR invites you to answer the following questionnaire.

The result will be used to develop useful and attractive activities for you in the future.

ALL your answers will be kept secret, therefore, you should answer truthfully about what you think.

You can choose "I don't know" if you are not sure about your answers.

Thank you very much. Let's start!

Survey Questions

Please mark (X), circle or fill your answers in the following questionnaire

1. **Have you ever consumed food, health products, and/or liquors or used ornamental products obtained from wild animals?** (mark one)
 - a. **Yes.** Please go to question 2, and pass question 8.
 - b. **No,** please go to question 8
2. **Can you please mark the wild animal products you have used and the respective species of the product** (mark any that apply)

No	Species name	Eat meat	Drink wine	Medicine	Pet	Fashion/ornament	Other purposes (Specify)
1.	Civet/Weasel						
2.	Eagle						
3.	Wild Chicken, duck, birds						
4.	Bear						
5.	Wild boar						
6.	Tiger/Leopard						
7.	Deer, Stag						
8.	Primate						
9.	Monitor lizard						
10.	Leopard cat						
11.	Porcupine						
12.	Snake						
13.	Marine turtle						
14.	Fresh water turtles						
15.	Pangolin						
16.	Python						
17.	Elephant						
18.	Don't remember						
19.	Other (Specify):						



3. **How often do you use wild animal products** (mark any that apply)

Using	Scarcely	Twice per year	Once per month	Once per week	More than once per week
Eat meat					
Drink wine					
Medicine					
Pet					
Fashion and ornamental					
Other purpose (Specify)					

4. **How do you use wild animal products in 2010, compared to previous years?** (mark one)

- a. Less than before b. More than before c. As before d. Not using at all

Please explain:

.....

5. **On what occasion do you eat wild animal food?** (mark any that apply)

- a. Travel with my family d. Holidays
b. Family events: birthday, weddings. e. Other (specify):.....
c. When I like, my parents buy for me

6. **Where do you normally eat wild animal food?** (mark any that apply)

- a. At home d. Specialty restaurant in the HCMC
b. Restaurant in HCMC e. Specialty restaurants in other provinces
c. Restaurant in Hotel in HCMC f. Other (Please specify):.....
.....

7. **What are the reasons you eat wild animal food?** (mark any that apply)

- a. Feel tastier e. Because my parents can pay
b. Good for health f. Other (specify):.....
c. My parents tell me eat it

8. Only if your answer is NO for question 1: **What are the reasons you do not use wild animal products?** (mark any that apply)

- a. My parents tell me do not eat e. Adverse ecological impacts
b. Too expensive for my parents to buy f. Disease transmission
c. Don't like g. Disgusting
d. Not legal h. Other (specify):.....
.....

9. **In the future, do you think that you will use wild animal products?**

- a. Yes b. No c. I don't know yet

10. **What is an endangered species?**

- a. Animals that are threatened of being eaten by other animals d. Animals that can disappear from the Earth forever.
b. Animals that are dangerous and we should stay away e. I don't know
c. Animals that are slaughtered by humans. f. Other (Specify):
.....



11. In your opinion, which of the following animals are endangered species? (mark any from each row)

No	Species name	Endangered species	Not endangered species	Don't know
1.	Crocodile			
2.	Civet/Weasel			
3.	Eagle			
4.	Wild Chicken, duck, birds			
5.	Bear			
6.	Wild boar			
7.	Tiger/Leopard			
8.	Deer, Stag			
9.	Primate			
10.	Monitor lizard			
11.	Leopard cat			
12.	Porcupine			
13.	Snake (cobras)			
14.	Marine turtle			
15.	Fresh water turtles			
16.	Pangolin			
17.	Python			
18.	Elephant			

12. Small animals in the forest such as mosquitoes and terrestrial leeches are not important to the humans.

- a. Correct b. Not correct c. I don't know

13. People can live without animals. This is proved by the fact that many animals have disappeared forever but people are still fine.

- a. Correct b. Not correct c. I don't know

14. In your opinion, what are role of wild animals? (mark any that apply)

- | | |
|--|---|
| a. Barely have any value. | g. To ensure that they are available for medicinal research and other uses in the future. |
| b. To ensure the ecological balance of nature. | h. To inspire us in music and poem |
| c. To make our lives more lively. | i. I don't know |
| d. To enable our children to see them in the future. | j. Other (Specify): |
| e. Provide a source of food and medicines. | |

15. Many wild animal products such as bush meat, bear bile and tiger bone glue...are fake.

- a. Correct b. Not correct c. I don't know



16. Which of the following contributes mostly to the extinction of endangered animals in Vietnam? (mark any that apply)

- | | |
|---|---------------------------------------|
| a. Illegal hunting. | e. Keeping wild animals as pets. |
| b. Trading of wild endangered animals and their products. | f. Deforestation/habitat destruction. |
| c. Eating meat of endangered animals. | g. Environmental pollution. |
| d. Using traditional medicines from wild animals. | h. Natural disasters. |
| | i. I don't know |

17. Trading of any wild animal is illegal.

- | | | |
|------------|----------------|-----------------|
| a. Correct | b. Not correct | c. I don't know |
|------------|----------------|-----------------|

18. Capture, release and consumption of any product from endangered wild animals is legal.

- | | | |
|------------|----------------|-----------------|
| a. Correct | b. Not correct | c. I don't know |
|------------|----------------|-----------------|

19. Capture, release and consumption of any product from endangered wild animals that are raised from the second generation is legal

- | | | |
|------------|----------------|-----------------|
| a. Correct | b. Not correct | c. I don't know |
|------------|----------------|-----------------|

20. In your opinion, which of the following activities contributes to wild animal protection? (mark any that apply)

- | | |
|--|--|
| a. Buy wild animals and release them to the wild. | e. Only eat food from small wild animals such as civet, porcupine, snake and wild birds. |
| b. Only use products from endangered animals when others offer it. | f. Do not litter inappropriately, keep the environment clean and green. |
| c. Eat food from wild animals only once per year. | g. I don't know |
| d. Do not use or buy souvenirs from endangered animals. | h. Other (specify): |

21. What do you think about wild animals? (mark one)

- | | |
|--|---|
| a. I love wild animals; I want to see them more often. | d. I think that wild animals play an important role in human lives. |
| b. I am scared of wild animals because they can transmit diseases. | e. There are many wild animals; humans can use them as much as we want. |
| c. I do not care about wild animals because it has nothing to do with my life. | f. Wild animals are dangerous to humans. |
| | g. Other (specify): |

22. What do you think if your children cannot see some wild animals because they are extinct? (mark one)

- | | |
|--|--------------------------|
| a. Does not matter, there are other wild animals to see. | d. I do not care. |
| b. Sorry, sad. | e. Other (Specify):..... |
| c. Normal. | |

23. What do you think about protection of wild animal? (mark one)

- | | |
|---|---|
| a. Protecting wild animals is an important job but I cannot do anything to help. | c. I can contribute to protect wild animals |
| b. I do nothing that harms the wild animals, thus, I do not have to protect them. | d. I do not care |
| | e. Other (specify): |

24. What will you do when you find out that someone in your neighborhood is trading wild animals illegally? (mark one)

- | |
|--|
| a. Do nothing. |
| b. Report to local authorities. |
| c. Talk to the trader about wild animals and ask them not to trade wild animals illegally. |
| d. I don't know. |
| e. Other (Specify): |



25. **Who will you call when you see wild animals that are trading illegally?** (Please mark and fill the telephone number)
- Mobile team, HCMC Forest Protection Department: _____
 - People's committee of ward: _____
 - WAR (Wildlife At Risk): _____
 - ENV (Education for Nature Vietnam): _____
 - Other (specify the name and the number):
 - I don't know

Information, Communication

26. **What do you usually do on your free time?** (mark any that apply)
- | | |
|------------------------------|----------------------------|
| a. Television | f. Game online |
| b. Radio | g. Play game |
| c. Printing Newspaper | h. Go out with friends |
| d. Online Newspaper/Internet | i. Others (specify): |
| e. Chat with friends | |
27. **Which of the following activities do you like, mark the number from 1 to 7? (1 is the most favourite one)**
- _____ To participate in a club about wild animal protection
- _____ To participate in an education exhibition that has pictures, models, voices of wild animals and games on protecting wild animals.
- _____ To participate on a trip to the forest for about 2-3 days.
- _____ To participate in a contest/a puzzle on protecting wild animals.
- _____ To create and perform a play about wild animals or watch your schoolmates perform a play about wild animals.
- _____ To watch a puppetry show about wild animals
- _____ To ride a bicycle around the city that has a slogan on protecting wild animals.

Your information

- Name (Optional):
- Gender: Male Female
- Class: Year 6 Year 7 Year 8 Year 9
- Your parents' profession: (Round and fill F for your father and M for your mother)

a. Government Officer	e. Farmer
b. State and private enterprise	f. Non governmental
c. Self-employed trader	g. Students
d. House work/ Unemployed	h. Other (Specify):

Thank you so much.

For the interviewer

Date.....Month.....Year.....

Name of the collector:..... No. of questionnaire:

Name of the answered person:.....

- a. District 1 b. District 3 c. Phu Nhuan District d. Binh Thanh District



Appendix 4. List of volunteer students

Note: Faculty of biology: Faculty of Biology, University of Science, VNU- HCM

No.	Full Name	Class	Faculty, University
1.	Ngo Thi My Lien	09CS	Faculty of Biology
2.	Le Thi Kim Ngan	08SH	Faculty of Biology
3.	Nguyen Van Thang	08SH	Faculty of Biology
4.	Tran Ngoc Mai	08SH	Faculty of Biology
5.	Vu Thi Que	07SH	Faculty of Biology
6.	Ho Thi Kim Lan	Graduated	Faculty of Biology
7.	Nguyen Hoang Minh	08SH	Faculty of Biology
8.	Ngo Thanh Binh		University of Economic HCMC
9.	Mai Thi Thanh Nga	08CS	Faculty of Biology
10.	Ngo Minh Quang	07SH	Faculty of Biology
11.	Tran Thi Cam Tu	Graduated	Faculty of Environment
12.	Pham My Hanh		University of Economic HCMC
13.	Nguyen Thi Minh Phuong	Graduated	Faculty of Biology
14.	Tran Phuong Thao	08SH	Faculty of Biology
15.	Nguyen Thi My Linh	07CS	Faculty of Biology
16.	Duong Thi Kim Thuy		Hong Bang University
17.	Dang Thi Kim Ngan	09CS	Faculty of Biology
18.	Dang Thi Thu Nga	09CS	Faculty of Biology
19.	Nguyen Thi Dieu Linh	09CS	Faculty of Biology
20.	Vo Tien Dung	09CS	Faculty of Biology
21.	Pham Thi Tuyet Mai	09CS	Faculty of Biology
22.	Bui Quang Huy	09CS	Faculty of Biology
23.	Le Khanh Linh	09CS	Faculty of Biology
24.	Trinh Van Ngu	09CS	Faculty of Biology
25.	Tran Duc Tin	09CS	Faculty of Biology
26.	Le Tuan Anh	09CS	Faculty of Biology
27.	Nguyen Huu Duong	09CS	Faculty of Biology
28.	Tran Ngoc Tao	09CS	Faculty of Biology
29.	Tran Thi Ngoc Diep	09CS	Faculty of Biology
30.	Tran Kim Ngan	09CS	Faculty of Biology
31.	Tran Thi Mai Thuong	09CS	Faculty of Biology
32.	Tran Thi Minh Truc	09CS	Faculty of Biology
33.	Vu Thi Ngan	09SH	Faculty of Biology
34.	Tran Thi Ngoc Tu	09SH	Faculty of Biology



No.	Full Name	Class	Faculty, University
35.	Nguyen Thi Mo	09SH	Faculty of Biology
36.	Le Thi Phuong Thao	09SH	Faculty of Biology
37.	Hoang Kim Son	09SH	Faculty of Biology
38.	Bui Thi Thanh Nhan	09SH	Faculty of Biology
39.	Nguyen Van Do	08SH	Faculty of Biology
40.	Nguyen Ngoc Trung	07SH	Faculty of Biology
41.	Pham Anh Tuan	07SH	Faculty of Biology
42.	Truong Chau Nhat	09SH	Faculty of Biology
43.	Nguyen Dang Hoang Vu	08SH	Faculty of Biology
44.	Pham Thi Hanh	09SH	Faculty of Biology
45.	Nguyen Thi Thanh Tuyen	09CS	Faculty of Biology
46.	Le Thi Hong Nhung	09CS	Faculty of Biology
47.	Dinh Thi Huong Thuy	09CS	Faculty of Biology
48.	Phan Thi Lien	09SHH1	Faculty of Biology
49.	Huynh Thanh Huong	09SHH1	Faculty of Biology
50.	Mai Thi Hanh Dung	09SHH1	Faculty of Biology
51.	Tat Tien Khoa	09SHH1	Faculty of Biology
52.	Tran Do Thanh Cuong	09SHH1	Faculty of Biology
53.	Pham Thi Uyen	09CS	Faculty of Biology
54.	Truong Thi Thuy	09CSH1	Faculty of Biology
55.	Tran Cao Cuong	09SH	Faculty of Biology
56.	Tran Truc Ly	20 th course of master	Faculty of Biology
57.	Le Thi Thanh Ngan	20 th course of master	Faculty of Biology



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WILDLIFE AT RISK

Wildlife At Risk (WAR) is dedicated to protecting the biodiversity of Vietnam by combating the illegal wildlife trade and promoting the conservation of endangered species and their habitats.

Founded in 2003 in Vietnam, WAR currently co-operates with government bodies, local authorities, institutions, organizations and individuals both nationally and internationally to implement its initiatives in four provinces including Ho Chi Minh City, Kien Giang, Dong Nai and Can Tho. WAR is working in three areas including:

- **Enforcement programmes** aim to reduce the exploitation of endangered species and support the confiscation, rehabilitation and possible release of illegal traded wildlife. WAR is working with the Forest Protection Department to support, establish and operate the Cu Chi Wildlife Rescue Station, Cat Tien Bear and Wild Cat Rescue Station, and Hon Me Wildlife Rescue Station.
- **Conservation programmes** aim to identify the richness of biodiversity and to safeguard endangered species and their habitats.
- **Wildlife education programmes** aim to raise awareness, improve knowledge, foster attitude and enhance skills for stakeholders so that they are able to make educated decisions to change their behaviours towards wildlife protection.