

Project Report of Sakura-Neko (Spayed/Neutered Cats) TNR on Tokunoshima Island



Period of activity
15th November, 2014 - 27th January, 2016
Applicants
Three towns on Tokunoshima Island
(Amagi, Isen, Tokunoshima)



The Public Interest Incorporated Association “Doubutsu-kikin (Animal Foundation)”, collaborating with public administrations, undertook a free TNR (Trap-Neuter-Return) sterilization operation targeting all existing cats (estimated number 3,000) on Tokunoshima Island. The project was implemented to protect the Amami wild black rabbits from being preyed on by cats. It will certainly contribute to the efforts of the Amami Islands, Kagoshima Prefecture, to become a World Natural Heritage site candidate. The Tokunoshima Island is the place where Amami wild black rabbits live, and they are classified as a special natural treasure. In 2014 the mountain region in Tokunoshima was classified as a Quasi-National park and will probably become a National Park soon. The Amami Islands are planning to register for the World Natural Heritage Lists in the next two years, however, the current estimated number of Amami wild black rabbits, which are the reason for the registration, is only 200 on the whole island of Tokunoshima and even worse, they are now on the Endangered species.

Amami wild black rabbits and Cats

The Ministry of the Environment monitors Amami rabbit habitats with automatic sensor cameras, and a scene when a feral cat preyed on an Amami wild black rabbit was captured. Due to improper feeding, lack of spaying or neutering operations, or abandonment, dogs and cats become feral, propagate, and then prey on wildlife. The investigation has uncovered this serious problem.

The Sakura-Neko (Spayed/Neutered Cats) TNR project on the whole Tokunoshima Island

The project was aimed at protecting the rare animals including the Amami wild black rabbits and also at making the Tokunoshima Island the world's best nature-friendly and wildlife-friendly island. We believe that the sterilization operations for all estimated 3,000 cats on the island and the change to “Sakura-Neko (Spayed/Neutered Cats)” will result in a well managed coexistence between cats, humans, and Amami wild black rabbits.



Amami wild black rabbit captured by feral cat
(Photo: Amami Nature Conservation Office of the Ministry of the Environment)

What are "Sakura-Neko (Spayed/Neutered Cats)"?

Trap Neuter Return



The cats with V-shaped ear are all **neutered**.
The shape looks like a cherry blossom, Sakura in Japanese.
So we call them "**Sakura Neko**". Neko means Cat.

Sakura Neko only wants to make the limited life peaceful.
We hope your kindness to them.

Sakura Neko are to Be Loved!

ポスター製作提供
公益財団法人
どうぶつ基金

Contact
Posting without permission is prohibited

Problem Analysis and Solutions

Problems between Amami wild black rabbits and Cats

- I. The problem of cats that live in the same area where there are Amami wild black rabbits
 - II. The problem of cat owners who abandon their cats when they have too many due to neglect in having their pets sterilized.
 - III. The problem caused by stray cats
 - IV. The problem of the lack of a veterinary hospital for small animals (up until 2014)
 - V. There is no time left. The number of Amami wild black rabbits has already been reduced to 200
-

Analysis of Problems

Cats didn't originally exist in the habitat area of Amami wild black rabbits, in other words, there never used to be cats on Tokunoshima Island. However, due to the following two reasons, there are now cats in the Amami wild black rabbit habitat.

1. Owners abandon their pet cats. Those abandoned cats become strays and enter into the Amami wild black rabbit's habitat.
 2. Owners abandon their "excess" cats, resulting from their negligence in sterilizing their pets, near the Amami rabbits' habitat.
-

Concrete Solutions

One problem was linked to another, therefore, we needed to carry out the project not only for the cats living in the Amami rabbits' habitat, but also for stray cats and pet cats on the whole island. We, as a consequence, aimed to spay and neuter all existing cats regardless of their habitat on Tokunoshima Island. In addition, for the cats that were in the habitat of Amami rabbits, we applied the method of "Trap-Neuter-**Rehome**" instead of the conventional "Trap-Neuter-**Return**", offering them shelter to continue to live in the town of Amagi. Since 2015, with respect to those cats from Amami wild black rabbits' habitats, the Ministry of the Environment is working hand-in-hand with the Planning Department of Amagi-town to continue to provide shelter and look for new adoptive homes for them.

Project Summary

doubutukikin

Working Method

Three town offices played a key role in the “Trap” and “Return” part of TNR, and the Foundation assumed a role in “Neuter”. The necessary cost, such as baits in cage traps, transportation, and carriage, was borne by each office, and the Foundation covered medical expenses associated with surgeries on the spot, travel costs for veterinarians and the Foundation staff team.

Public Relations

The Foundation made posters and leaflets at its own cost to notify islanders about the project. All three town offices were responsible for the distribution to each house and posting them in public facilities. Furthermore, the Foundation organized exhibitions to introduce the Sakura-Neko (Spayed/Neutered Cats) TNR project in each public office and the lifelong learning centers seized the opportunity of “Be Kind to Animals Week”.

Lending Cage Traps

The foundation lent 212 cage traps to three towns in order to trap cats.



Leaflets and posters prepared for the project

TNR
tokunoshima

Schedule

doubutukikin

General Schedule

Program	Venue	Content of implementation
Press conference 1-3/11/2014	Amagi Town Office	Press conference
1st 15-22/11/2014	Farm of Tokunoshima High School	5 3 7
2nd 25-31/01/2015	Farm of Tokunoshima High School	6 4 1
3rd 16-21/04/2015	Former Tokunoshima municipal Kaminomine Elementary School, separate school of Shimokushi	2 5 1
4th 14-19/06/2015	Agricultural Center of Amagi-town	2 3 3
5th 5-9/11/2015	Agricultural Center of Amagi-town	3 1 4
6th 24-27/01/2016	Former Folklore Museum of Isen-town	1 6 0
Total		2, 1 3 6

Number of assisted veterinarians

Veterinarians who participated as volunteers covered their own expenses for transportation and lodgings.

Implementation Period	Referring Veterinarians	Volunteer Veterinarians	Total
1st	4	2	6
2nd	6	2	8
3rd	4	3	7
4th	3	2	5
5th	3	0	3
6th	2	0	2
Cumulative number of veterinarians	22	9	31

Venues of Surgery

doubutukikin



1st Farm of Tokunoshima High School
(Former Tokunoshima Agricultural High School)



2nd Farm of Tokunoshima High School
(Former Tokunoshima Agricultural High School)



3rd Former Tokunoshima municipal
Kaminomine Elementary School,
separate school of Shimokushi



4th Agricultural Center of Amagi-town



5th Agricultural Center of Amagi-town



6th Former Folklore Museum of Isen-town

On-site Surgery

doubutukikin



● Morning assembly before surgery



● Cats arrived by government-arranged trucks



● Reception of pet cats and dogs



● Tagging cages before surgery



● Injection of sedative and anesthesia



● Paws were tagged, antibiotic / vaccines / flea and tick removal

On-site Surgery

doubutukikin



- Cutting hair and ear



- Sakura (cherry blossom) petal shaped ear



- Spay / Neuter



- Small 1cm post-operative scar by experts



- Fluid replacement, eye drops, sterilization, earwax removal, treatment after surgery



- Other medical treatments, if any, such as venomous snake bites

On-site Surgery

doubutukikin



- Washing and sterilizing surgical instruments each time



- Cleaning the cages during surgery



- After surgery, cats rest overnight.



- Cats are returned to their home region on the following day



- Kittens are protected in the town office until they are old enough for the next on-site surgery.



- The project received wide media attention from KTS Kagoshima Television Station, etc.

Handmade Box Cage

doubutukikin



● Eco-friendly

The plastic box cages to trap and protect cats were made in the town offices. The boxes were originally for potatoes, and they are reusable after the project.



● Functionality

Two wooden boards cover the box. Before injecting the sedative, a mesh board was inserted through the gap between the two wooden boards so that the cat could easily move into the corner of the box to minimize stress.



● Characteristics

The cages were color coded by town. Light blue for Amagi-town, Yellow for Isen-town, and Green and Black for Tokunoshima-town. All the cages were handmade by each town office.

Identification Tag

doubutukikin

As we had to manage about 100 surgeries per day, we used detachable identification tags to identify each cat and its necessary treatments.

● Home Region Management

To remember which cat belonged in which cage from which region, a red tag was attached to the cage and a green one to the cat's paw. We verified serial numbers after surgery, and returned the cats to their original cages.

● Treatment Content Management

To verify necessary treatments correctly, such as vaccines, antibiotics, etc., we used a check list to manage them. The amount of Ketamine was also recorded. When the cats were returned to their cages after surgery, we detached the green identification tag from their paw, and input the data into a computer for final calculations. This way we recorded the number of operations, the ratio of male to female, and the amount of medication that was used.

月	日	猫右腕
No.	001003	<input type="checkbox"/> ノラ猫 <input type="checkbox"/> 飼い猫
<input type="checkbox"/> 伊仙	<input type="checkbox"/> 天城	<input type="checkbox"/> 徳之島
<input type="checkbox"/> マイクロチップ	<input type="checkbox"/> 済	<input type="checkbox"/> 未済
<input type="checkbox"/> オス	<input type="checkbox"/> メス	<input type="checkbox"/> 不明
毛色	: _____ ちゃん	
ワクチンシール貼		

<input type="checkbox"/> 安定剤	<input type="checkbox"/> ケタミン	ml.
<input type="checkbox"/> 抗生剤	<input type="checkbox"/> 毛刈り	
<input type="checkbox"/> ノミ駆	<input type="checkbox"/> 耳カット	<input type="checkbox"/> 尿出し
<input type="checkbox"/> 堕胎	匹	
執刀医 自筆署名 _____		
最終確認 自筆署名 _____		

月	日	ケージ用
No.	001003	<input type="checkbox"/> ノラ猫 <input type="checkbox"/> 飼い猫
<input type="checkbox"/> 伊仙	<input type="checkbox"/> 天城	<input type="checkbox"/> 徳之島
<input type="checkbox"/> マイクロチップ	<input type="checkbox"/> 済	<input type="checkbox"/> 未済
<input type="checkbox"/> オス	<input type="checkbox"/> メス	<input type="checkbox"/> 不明
毛色	_____	
猫名	_____ ちゃん	
管理者	_____	
携帯番号	_____	
(公財) どうぶつ基金		



- Special program held in Isen Elementary School
Minobe section chief and Sagami administrative director of the Environment Division lectured



- Commemorative photograph of the special program "Let's think about animal lives and the natural environment in Tokunoshima"



- Students of biology of Tokunoshima High School assisted the surgery of Dr. Yamaguchi



- Open air class by Sagami administrative director



- Explanation about microchips by a prefectural veterinary doctor



- Islander children came to visit

Spaying and Neutering Dogs



● Payable Surgeries for Pet Dogs

There didn't used to be a veterinary hospital in Tokunoshima. This made it difficult to spay or neuter pet dogs, and it resulted in the existence of relatively many feral/stray dogs. Therefore, in response to strong demands from three town offices and islanders, we organized a program to spay and neuter 48 pet dogs for a fee at the 3rd and 4th on-site surgeries. The fee was JPY 5,000 for either male or female. Additionally, JPY 1,000 was asked for vaccines, flea removal, and rabies prevention. We didn't plan to spay or neuter dogs at the 5th on-site surgery, as the first veterinary hospital had already been established in Tokunoshima.



● No Charge Spaying and Neutering for Dogs in the Tokunoshima Public Health Center

Taking the opportunity of the 4th on-site surgery, we spayed and neutered 6 dogs protected in the public health center for free, collaborating with the Tokunoshima public health center. Spayed/neutered dogs were adopted by new owners through the prefectural humane society "Waco".

Special Medical Treatments doubutukikin

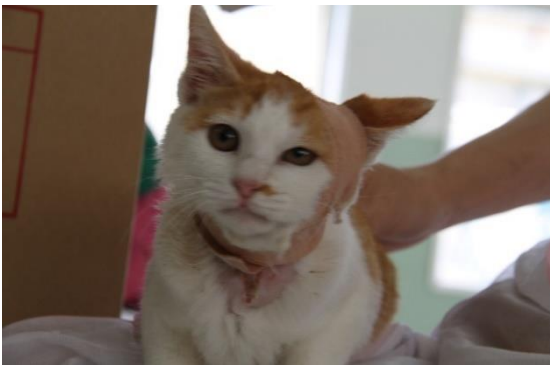
Cats often came to the operating room injured or sick. In that case, we tried our best to treat within the limited range of our equipment. Below are some examples.



● Operation to amputate a paw



● About 10 cats had been bitten by venomous snakes.



● One pet cat had been bitten by a venomous snake and had received first-aid treatment and bandaging by its owner.



● Operation of hydronephrosis. The kidney had become enlarged to baseball-size.



● One cat got 21 stitches on right stomach, 10 stitches on the inside left shoulder and 11 stitches on the outside. Became a big eater from the day after the operation.



● Operation of diaphragmatic hernia at the same time, we performed artificial respiration with a tracheal tube.

Volunteer Veterinarians

doubutukikin

We received volunteer veterinarian doctors and AHTs (Animal Health Technician) from across the country, who were willing to support our project policy that protects Amami wild black rabbits without killing cats. Although volunteers had to bear all of their expenses such as transportation and lodgings, 9 volunteer veterinarians participated during a total of 6 on-site surgeries. The project offered them an opportunity to exchange information and ideas. After the project, some veterinarians decided to initiate local TNR activities, others decided to restart their career as veterinarians or open a veterinarian hospital specialized in the TNR and protecting dogs. In addition to veterinarians, some volunteer AHTs also joined us in the project.



- Identifying green vests for veterinarians. The 3rd on-site surgery.



- Dr. Hirano participated with his family. Children were at local sitters during the surgery. One year later, he opened his own veterinary hospital specialized in the TNR and medical care to protect stray cats and dogs in Odawara.



- Dr. Tokuda, director of the Ryunosuke Animal Hospital, carried on with his original campaigns for free of charge sterilization operations in his hometown in Kyushu after his participation in this project.



Number of operations

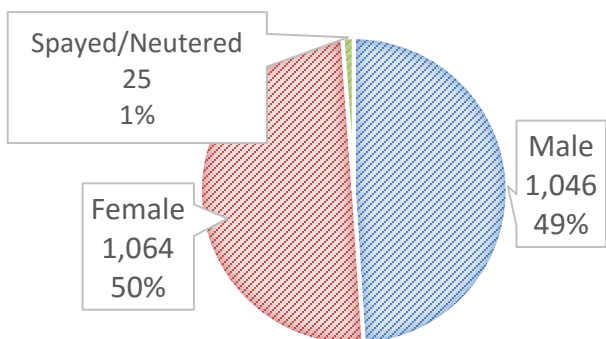
		Male	Female	Ear cut only*	No treatment**	Total
1st	17-21.11.2014	250	283	4	0	537
2nd	26-30.01.2015	317	318	6	0	641
3rd	17-20.04.2015	117	128	1	5	251
4th	15-18.06.2015	109	120	1	3	233
5th	5-8.11.2015	174	137	2	1	314
6th	24-27.01.2016	79	79	2	0	160
Total		1,046	1,065	16	9	2,136

* Trapped cats that had been already spayed/neutered. Only ear cutting, vaccine, and flea removal were done.

** Trapped cats that had been already spayed/neutered with V-shaped ear. No treatment.

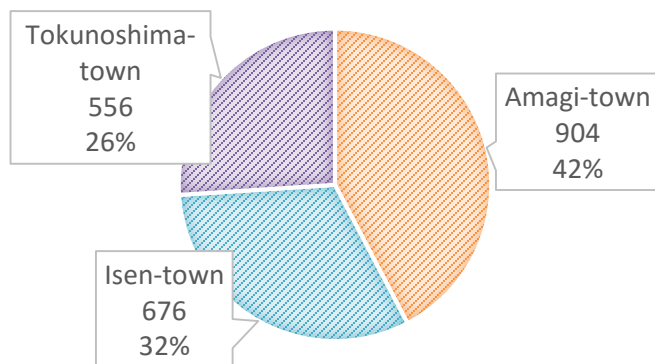
MALE/FEMALE RATIO

Male Female Spayed/Neutered



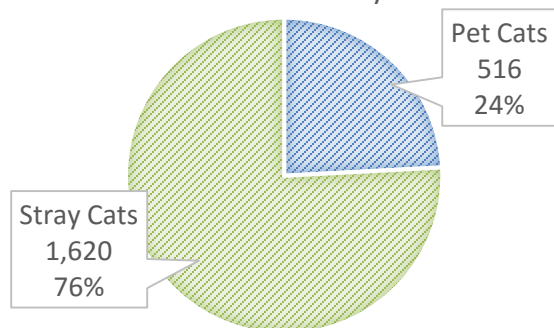
NUMBER OF OPERATIONS BY TOWN

Amagi-town Isen-town Tokunoshima-town



PET/STRAY RATIO

Pet Cats Stray Cats



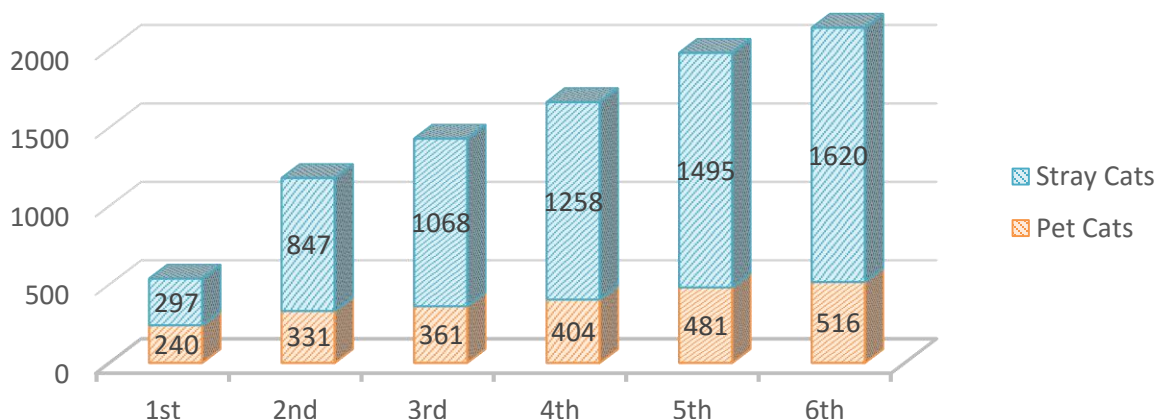
Number of operations by town, by type of cat

		Implementation Period	Pet Cats	Stray Cats	<i>Total</i>
Amagi-town	1st	17-21.11.2014	85	50	135
	2nd	26-30.01.2015	48	331	379
	3rd	17-20.04.2015	8	79	87
	4th	15-18.06.2015	23	97	120
	5th	5-8.11.2015	7	115	122
	6th	24-27.01.2016	14	47	61
	<i>Subtotal</i>		185	719	904
Isen-town	1st	17-21.11.2014	70	194	264
	2nd	26-30.01.2015	20	126	146
	3rd	17-20.04.2015	8	45	53
	4th	15-18.06.2015	11	45	56
	5th	5-8.11.2015	43	53	96
	6th	24-27.01.2016	15	46	61
	<i>Subtotal</i>		167	509	676
Tokunoshima-town	1st	17-21.11.2014	85	53	138
	2nd	26-30.01.2015	23	93	116
	3rd	17-20.04.2015	14	97	111
	4th	15-18.06.2015	9	48	57
	5th	5-8.11.2015	27	69	96
	6th	24-27.01.2016	6	32	38
	<i>Subtotal</i>		164	392	556
Total	1st	17-21.11.2014	240	297	537
	2nd	26-30.01.2015	91	550	641
	3rd	17-20.04.2015	30	221	251
	4th	15-18.06.2015	43	190	233
	5th	5-8.11.2015	77	237	314
	6th	24-27.01.2016	35	125	160
	<i>Total</i>		516	1,620	2,136

Cumulative total number of operations by type of cat

	1st	2nd	3rd	4th	5th	6th
Pet Cats	240	331	361	404	481	516
Stray Cats	297	847	1,068	1,258	1,495	1,620
Total	537	1,178	1,429	1,662	1,976	2,136

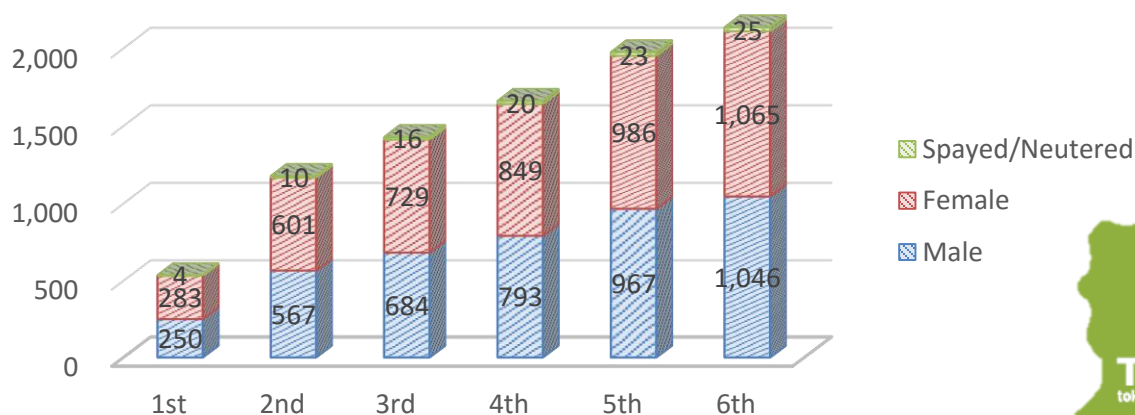
CUMULATIVE TOTAL BY TYPE OF CAT



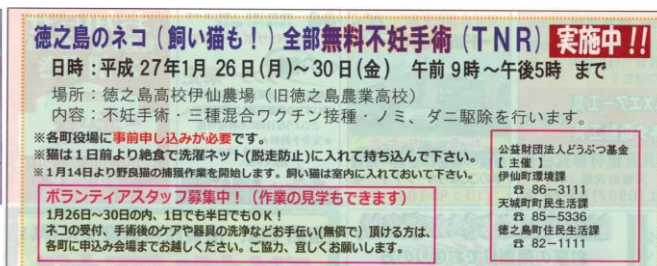
Cumulative total number of operations by gender

	1st	2nd	3rd	4th	5th	6th
Male	250	567	684	793	967	1,046
Female	283	601	729	849	986	1,065
Spayed/Neutered	4	10	16	20	23	25
Total	537	1,178	1,429	1,662	1,976	2,136

CUMULATIVE TOTAL BY GENDER



We announced in advance the schedule of implementation of the project on websites and in public relations magazines in each town, and called for applications for operations of pet cats and the provision of stray/feral cats' information.



To make this project a success, it was essential to have the cooperation of local residents and the understanding of the project and its objectives. In this regard, we made presentation panels of the Tokunoshima TNR Sakura-Neko (Spayed/Neutered Cats) project targeting islanders and exhibited them in each town hall and other facilities where people often visit, seizing the opportunity of “Be Kind to Animals Week”.



●Exhibition in the lifelong learning center of Tokunoshima-town

●Exhibition in the town hall of Isen-town
(Website of Isen-town)

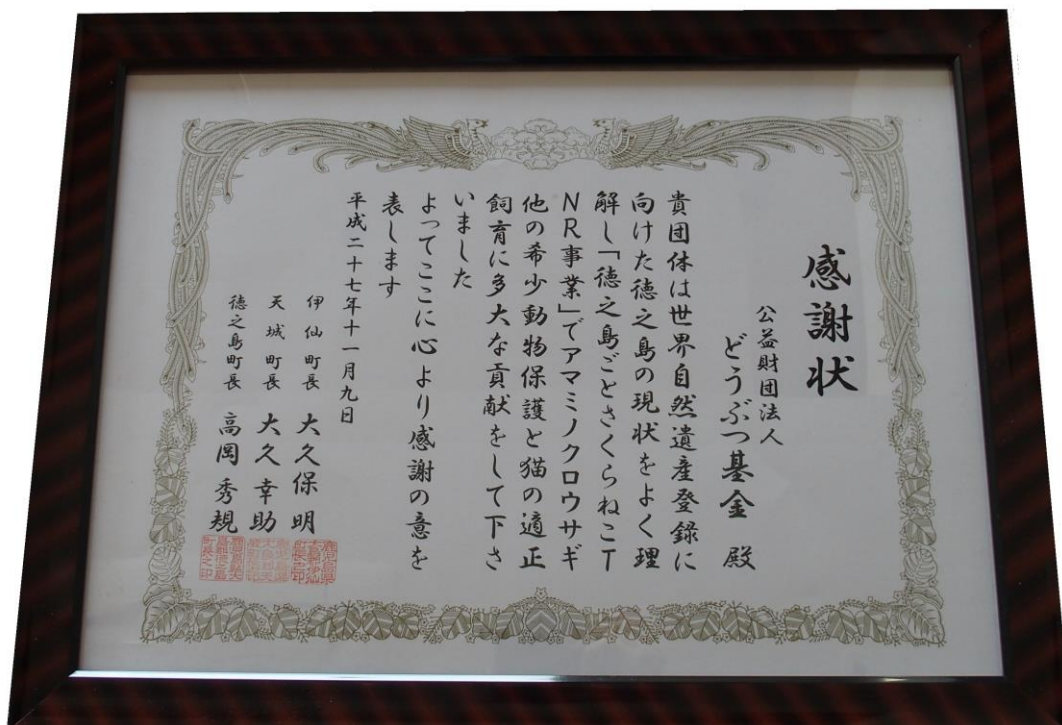
Letters of Appreciation

doubutukikin

From all three participant towns: Amagi, Isen, Tokunoshima, the Foundation received the certificate of gratitude for achievements and results for the free of charge sterilization operation Sakura-Neko (Spayed/Neutered Cats) project.



- Presentation ceremony in the town hall of Amagi-town. Mr. Ohisa, the mayor of Amagi-town, represented all three town offices.



- Certificate of gratitude



Osamu Minobe, Environment Division of Isen-town

Here is a small island that lies about 480km south of Kagoshima city. Native animals, such as Amami wild black rabbits and Tokunoshima spiny rats, as well as native insects and plants, are unique in the world and have coexisted with human islanders since about 1,000 years ago. Their habitat has been reduced in recent years because of development, and following this expansion, by human activities. Feral/stray cats and dogs eventually became damaging to wildlife. Their existence represents the biggest threat to the small island of Tokunoshima, a candidate for inclusion as a World Natural Heritage site, for the regions of Amami and Ryukyu. To resolve the menace of cats, our exhaustive discussions started three years ago with every relevant organization. However, we had never achieved an effective countermeasure, and when we had almost given up, we got information about the Doubutsu-kikin Foundation. We contacted them quickly. The Foundation understood the situation and it's urgency, and responded to our requests. Hence, we could accomplish outstanding results and we can now clearly see the efficacy of the project. We continue to do our best so that the regions of Amami and Ryukyu can be listed as a World Natural Heritage site avoiding further threats, and we hope that the island will be a good place to live for all of us: cats, dogs, and humans, passing this rich nature on to the next generation.

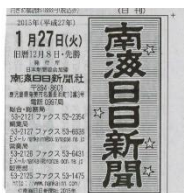
Testimonials (Veterinary Doctor) doubutukikin



Ayako Hirano, Veterinarian

I work in a partner hospital of Doubutsu-kikin and got to know the project in Tokunoshima. Throughout the 2nd and 3rd on-site surgeries where I participated, the wonderful thing that I found was the cooperative structure among Tokunoshima's public administration - Nature conservation groups - residents - the Doubutsu-kikin Foundation - Veterinarians and volunteers, and that everyone worked towards the same goal. I had to manage many operations during the on-site surgeries: 641 in the 2nd and 251 in the 3rd. I cannot ignore surgical safety even if there are many operations to do. I carefully prepared myself and arranged meetings previously. In addition, through a division of labor, I could perform surgeries effectively and safely. As other participant doctors were all highly-skilled veterinarians, it was an incredible team of professionals. It was rewarding work to cooperate with each other. Even though social issues surrounding animals are often arduous and gloomy, including culling, the Doubutsu-kikin Foundation continued their activities in a sincere manner and in a joyful way. There is a conflict of opinions through animal welfare activities, however, I think the attitude to provide opportunities where we participate easily and discuss frankly to decide on the next actions would solve problems.

Currently, culling is the standard method in the world to protect rare species against predators. So probably, not all people will agree on the TNR method in Tokunoshima. Yet, if we could find another way to protect those rare species, I think it would be better. I hope the activities in Tokunoshima will succeed, to respect biodiversity on the Amami Islands and to change the conventional standards, with "Quickly" "Totally" "Continuously" spirits.



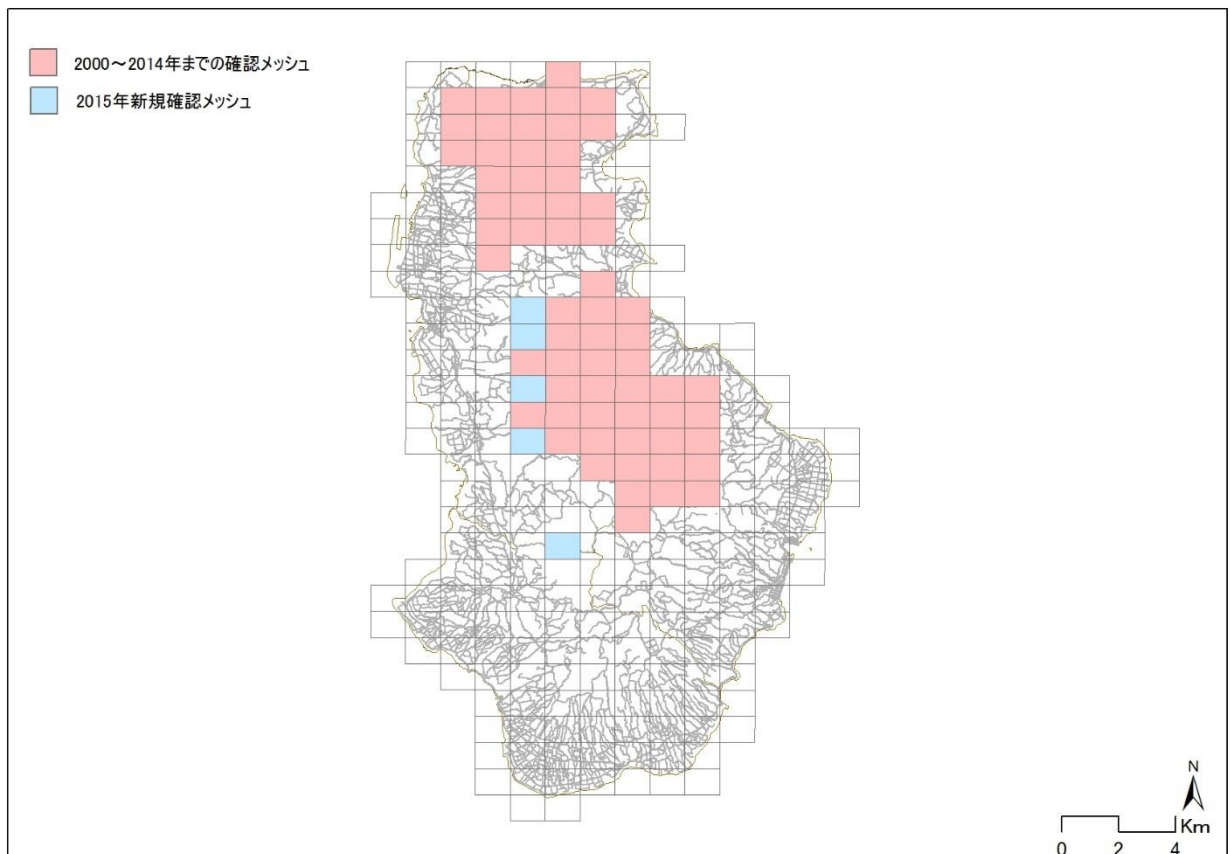
Death by cats reduced to only **ONE**

Reports from three towns

According to the research of Tokunoshima Nature Conservation Office of the Ministry of the Environment in 2014, when the project was launched, **9** Amami wild black rabbits were considered to have been killed by dogs or cats. In 2015, the number decreased dramatically to only **one**. Moreover, some Amami wild black rabbits were newly found in another **5** areas where there had not been before.

Amami wild black rabbits on Tokunoshima Island

Year	Number of Amami rabbits	Number of predations
2014	Approx. 200	9
2015	Approx. 200	1



● 1 square = 1km x 1km

Source: Tokunoshima Nature Conservation Office of the Ministry of the Environment

Activities on the Amami Islands

The comments below are from answers to a questionnaire about their conservation activities sent by e-mail from public offices on the Amami Islands where Amami wild black rabbits live (except Tokunoshima).

Amami-city

The direct action we took in relation to rare species, including Amami wild black rabbits, was installing speed bumps on roads in collaboration with 5 municipalities on the Amami Islands in 2015. Furthermore, we carried out TNR activities since 2013 directed at an improvement of environmental sanitation, to control the number of stray cats and to protect rare species from predation. The number of TNR operations in Amami-city is 103 in 2013, 246 in 2014, 150 in 2015. The activity in 2016 is currently underway.

Tatsugo-town

In 2015, working in partnership with 5 municipalities on the Amami Islands, we installed speed bumps, warning signs, and road signs. We also promoted public awareness activities in order to avoid roadkill.

Uken-village

Regarding the TNR between 2013-2015 for pet cats, there is no record by the village office, but it was executed as a prefectural veterinary medical association-subsidized project. We do not have concrete statistics for that TNR project. Since 2016, the village office conducts TNR activities independently. The targeted number is 50 except for pet cats. On the other hand, we installed road bumps on the main forest roads (around Mt. Yuwan).

Yamato-village

Non-response

Setouchi-town

Refusal to respond

Cause of death of Amami wild black rabbits on the Amami Islands

Amami Islands	2013	2014	2015
Traffic accident	16	8	19
Feral or stray dogs/cats	9	9	7
Other	27	40	42
Total	52	57	68

Source: Amami Nature Conservation Office of the Ministry of the Environment



This project was a large scale TNR, targeting all existing cats on the island regardless of whether they were pets, strays or feral. It was conducted over a short span of time, in order to protect rare species preyed on by cats. The TNR is often used to control cat nuisances in residential areas, and some people say that it's not effective for the conservation of rare species. We, the Doubutsu-kikin Foundation, believe that, if all three of the conditions cited below are met, the TNR will be successful and if any of them are missing it will definitely fail.

What is the **Sakura-Neko** (Spayed/Neutered Cats)

TNR

the Doubutsu-kikin promotes?

Quickly

▶ **Act immediately**

Female cats give birth to 5 to 7 kittens, and can produce 3 litters per year. Female kittens reach sexual maturity at 6 months, and give birth to another generation. If the TNR is done too slowly, you can never catch up with their speed of reproduction.

Totally

▶ **Treat the entire population**

A 90% completion only gives the remainder another opportunity to reproduce. It is essential to execute the TNR for 100% of the cat population rather than halfway measures.

Continuously

▶ **Ongoing management**

Even if we set a goal of 100%, there are always untrapped cats or newcomers. If we can maintain the management system to find non-spayed/neutered cats and to treat them immediately, it results in zero culling and zero complaints.

Since the 5th on-site surgery, more than half of the cats trapped were already Sakura-Neko (Spayed/Neutered Cats). Additionally, while there was no hospital for small animals when the project started, the first veterinary hospital was opened in 2015. More hospitals are planned for 2016, which enables islanders to continue TNR activities by themselves on the island. Therefore, the Sakura-Neko (Spayed/Neutered Cats) TNR projects, organized by the Foundation and three towns on Tokunoshima Island, ended with the 6th on-site surgery.





Public Interest Incorporated Association "Doubutsu-kikin (Animal foundation)"

Amagi-town, Isen-town, Tokunoshima-town