

Title	No-neko in the Amami Islands : media analysis using actor-network theory
Sub Title	
Author	Kanayama, Tomoko
Publisher	Institute for Journalism, Media & Communication Studies, Keio University
Publication year	2022
Jtitle	Keio communication review No.44 (2022. 3) ,p.5- 24
JaLC DOI	
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Notes	Articles
Genre	Journal Article
URL	https://koara.lib.keio.ac.jp/xoonips/modules/xoonips/detail.php?koara_id=AA00266091-20220300-0005

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No-neko in the Amami Islands: Media Analysis using Actor-Network Theory

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Abstract

With the aim of registering the islands comprising Amami Oshima, Tokunoshima, Northern Okinawa, and Iriomote Island as a World Natural Heritage site, “*No-neko* (feral cat) management plan” was implemented by the Ministry of the Environment, Kagoshima Prefecture, and five local municipalities. They began setting traps to capture *no-neko*, which threaten endangered species such as the endemic Amami black rabbit, to control their numbers on Amami Oshima, the biggest of the Amami Islands since 2018. As the cats were to be euthanized if no home for them was found within a week of capture, a major controversy has arisen between biodiversity protection and animal welfare over euthanasia. Various media, including local newspapers, mass media, and the Internet had reported the controversy and there also has been an active online petition drive. Since most of *no-neko* captured were transferred by animal welfare nonprofit groups outside the island, euthanasia has been avoided until 2021. This could be considered an unexpected outcome of the protests and an example of “strange cooperation” between groups implementing the plan and groups opposing it. Based on Actor-Network Theory, various media used by main actors in their actions to prevent the killing of *no-neko* can be seen as mediators between these actors and as motivators of their actions. With qualitative research conducted for six years, this study has illustrated how media as mediators tied together actors with varied interests, including major groups implementing the *no-neko* control plan, opponents of the plan, *no-neko*, and the Amami black rabbit.

Keywords: Actor-Network Theory, mediator, environmental communication, biodiversity conservation, animal welfare

Introduction

In May 2021, the International Union for Conservation of Nature (IUCN), an

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advisory body to UNESCO, announced its recommendation that the Islands, comprising Amami Oshima, Tokunoshima, Northern Okinawa, and Iriomote Island, be inscribed on the World Heritage List. This recommendation was passed by UNESCO on July 26, 2021.

The Amami Islands are located between Kagoshima (mainland Japan) and Okinawa Island. Eight islands of coralline origin comprise 1240 square kilometers and stretch in a north-south direction, and Amami Oshima is the biggest of the Islands. While agriculture and commerce such as sugar cane and wine are main industries, tourism based on the islands' natural wealth has become more important to the local economy. Japan sought World Natural Heritage status for four of the islands because of the ability of their unique wildlife to attract visitors and help domestic business. The IUCN conducted a field survey and evaluation of the islands in October 2017; the recommendation for assigning heritage status was turned down in 2018 and resubmitted in 2019. The main reason for the rejection in 2018 was insufficient effort to address the destruction of biodiversity by invasive species.

In Amami Oshima, *no-neko* (feral cats) threaten endangered species, such as the endemic Amami black rabbit who lives in the mountainous areas. In 2017, the Ministry of the Environment, Kagoshima Prefecture, and five local municipalities formulated a “*No-neko* management plan.” In 2018, they began setting traps to capture *no-neko* to control their numbers on Amami Oshima by culling 3,000 *no-neko*. The cats were to be euthanized if no home for them was found within a week of capture.

In Japan, where the number of domesticated cats surpassed that of dogs in 2017 and cats are the most popular pets, “no killing of cats” is a social movement and has become a slogan of local governments. Immediately after the news about the fate of *no-neko* was released, there was growing media criticism, especially on Internet, that *no-neko*, who were born because of humans, were being killed simply so that the islands could be registered as a World Heritage site. Sensational articles in a popular magazine influenced cat lovers and people concerned with animal welfare more generally. An increasing number of people spoke out against the plan on social media. Most wanted to protect cats' lives. As of July 2021, more than 90,000 signatures of people protesting the plan had been collected on social networking sites.

Many islands around the world are working to exterminate feral cats as an invasive alien species subject to immediate disposal, and a variety of methods are used for extermination, including foot dusting, hunting, and poison baiting (Hoshino, 2019). These measures are unacceptable to cat lovers, however, and those protesting the Amami *no-neko* project proposed transferring the cats captured. Killing them, regardless of method, was inexcusable.

By June 2021, 227 *no-neko* had been captured; most were taken in by animal welfare non-profit organizations and volunteer groups outside the island, and despite

the original plan, euthanasia has been avoided. This could be considered an unexpected outcome of the protests and an example of “strange cooperation” between groups implementing the *no-neko* control plan and groups who are unlikely to agree. Based upon the perspective of Actor-Network Theory, this study explores how each actor, including major groups implementing the *no-neko* control plan, opponents to the plan, and *no-neko* (feral cats) and Amami black rabbits (endangered species), were connected by the media on/off the island, resulting in strange cooperation.

Related Studies

Environmental Communication

Environmental issues are not always visible, as they tend to be problems only for a particular area, specific individuals, or certain groups and cannot directly be experienced by other members of society. Therefore, media play an important role in informing the public on environmental issues and introducing environmental discourse (Sekiya, 2015; Hansen, 2019). The media’s environmental communication can be seen as a “pragmatic and constitutive vehicle for our understanding of the environment as well as our relationships to the natural world” (Cox, 2013, p.19). Environmental communication shapes our understanding, creates meaning, and orients us to a wider world through films, print media, television, social media, etc.

In the Internet era, the migration of environmental news online has escalated, with an explosive growth in the green blogosphere. As Cox (2013) points out, “It is inevitable that, in a world mediated by online and mobile connections with others, such media influences what we learn, perceive, and think about the environment” (p.184). He lists six ways that social media have changed environmental communication: environmental information and “buzz”; green communities and social networking; reporting and documenting; public criticism and accountability; mobilizing; microvolunteering and self-organizing (2013, pp.178-191).

Environmental communication plays an important role in the public sphere where diverse voices engage the attention of others about environmental concerns. Cox (2013) defines the public sphere as “the realm of influence that is created when individuals engage others in communication—through conversation, argument, debate, or questioning—about subjects of shared concern or topics that affect a wider community” (p.24). It is not possible to solve environmental problems without communicating with people in the society and building consensus among various stakeholders (Kuwako, 2010). Engaging the public is a key concern, as the public has influence. Citing Habermas, Cox explains, “In public hearings, newspaper editorials, online alerts, speeches at rallies, street festivals, and countless other occasions in which we engage others in conversation, debate, or other forms of symbolic actions, the public sphere emerges as a potential sphere of influence”

(2013, p.25).

Conflict between Biodiversity Conservation and Animal Welfare

There are often disagreements about the resolution of environmental issues. It is quite difficult to reach consensus on the best resolution. The issue of biodiversity protection is no exception. For one thing, “biodiversity” is not easy to understand. As Eller (2019) explains:

Extinction and endangered species are an issue that the public grasps with relative ease...but the term “biodiversity” stirs up a level of abstraction that should be broken down by the media. People may lack an awareness about the interactions of species and the relevance of biodiversity in our lives.

To this, Hayashi (2010) adds:

While appeals to biodiversity are used as the basis for political decisions, scientific research, and to justify major decisions, it may be problematic that the concept of biodiversity and its value seem to be unclear. At worst, an examination may reveal that biodiversity is not as valuable as claimed. Even if this is not the case, diversity conservation efforts may be failing to preserve valuable parts of ecosystems or preserving parts with less value at the expense of time, effort, money, resources, opportunities, and the lives of exotic animals to be exterminated (p.112).

In addition to difficulties understanding the concept of biodiversity, the news coverage is much smaller than on climate change (Eller, 2019). Kousaka (2015) reveals the bias of news coverage in a study examining the coverage of the tenth session of the Conference of the Parties (COP10) in Buenos Aires in 2004. Kousaka notes that the number of news items on environmental protection and conservation remained constant for a year, while those on biodiversity and COP10 fluctuated greatly.

Biodiversity is not well understood, and it becomes even more difficult to understand when animal welfare issues are related to it, especially as it can conflict with issues of animal welfare protection (e.g., Soulé 1985; Capozelli, 2019). It is known that free-ranging domestic cats (*Felis catus*) impose risks on ecosystems and represent a complex and critical problem in biodiversity conservation and cat and human health globally (Gramza et al., 2015). However, the management of these cats has often been portrayed in the popular media and the scientific literature as a debate between environmental groups and animal rights and/or advocacy groups on perceptions of outdoor cats and support for cat management methods, focusing on

areas of disagreement instead of common interests (Wald, Jacobson, & Levy, 2013). The popular media often frame it as a war between “cat people” and “wildlife people” and enhance this perception with sensational titles (Wald, Jacobson, & Levy, 2013).

Question wording, issue framing, and survey context can significantly influence survey responses to handling the problem of feral cats. Compared to studies using more neutral words, such as “campus cats” or “outdoor cats,” previous surveys of public support for feral cat management in the US have reported greater support for euthanasia than trap-neuter-return (TNR) policies. The words used to describe a specific object (e.g., “feral” vs “community” cat) or concept (e.g., “removal” vs “kill” or “euthanasia”) have an effect on readers or viewers (Smith, 1987). Thus, the wording used in media may influence stakeholder perceptions of managing free-ranging domestic cats. Hansen (2019) describes “mediated communication” as a key component in both public understanding and political decision-making:

Like public opinion, media coverage itself often becomes a central referent and actor in the rhetoric of public controversy. Selective use of media stories as “evidence” is both tempting and easy for the simple reason that the media are so highly visible and therefore and easily identifiable reference point (p.167).

This type of mediated communication applies to the dissemination of information on feral cats in Amami Ohshima. Various stakeholders on the island formed opinions on the issue for years. Local media discussed the need for biodiversity conservation on the island and highlighted the various activities of the main organizations/groups. Shocking photos of Amami black rabbits killed by *no-neko* (feral cats) often appeared in the media. These stories promoted a common understanding of the plan to reduce *no-neko* numbers among the islanders who were expected to do the right thing to save biodiversity on the islands.

Animal welfare nonprofit organizations outside the island also disseminated information on the issue, proposing alternative actions, including foster care for captive *no-neko*, and reviewing the plan on their blogs and other social media platforms. They showed cute photos of captive *no-neko* on their websites, suggesting *no-neko* could be domesticated easily by humans. These stories attracted animal welfare groups and cat lovers, increasing the number of those opposing the killing of *no-neko*.

Thus, media for both groups—those for and against the reduction of the *no-neko* population by any means necessary—played an important role discussing the issue of biodiversity conservation, telling quite different stories about *no-neko* and Amami black rabbits, and motivating the actions of stakeholders of/off the island.

Theoretical Framework

Actor-Network Theory

The study of environmental communication typically focuses on media representation, implementing various methods including content analysis, agenda setting, framing analysis, and discourse analysis. However, a different approach is needed to explore complex processes in the environmental field. In this case, it is considered that media might play a role in creating a “strange cooperation” between very different stakeholders.

Actor-Network Theory (ANT) offers a way to approach relations between environment and society. ANT is gaining ground in the social sciences as a suitable theoretical model for building realistic and constructive approaches to environmental issues. Latour (2005), Callon (1986), and Law (1986) consider human and non-human actors as mutually shaping, transforming, and translating each other in the course of networking practices. ANT sees “society” as an unstable and ephemeral phenomenon formed by relations between actors that are not social in nature. Almost all beings on this planet—human beings, other animals, plants, fungi, inanimate objects—constitute a social world and a variety of realities by virtue of the relations established between them. In this approach, it is not possible to separate the social from the natural spheres, or sociological from scientific perspectives; both the environment and society are concepts created by humans, and human beings are themselves hybrid phenomena of nature and culture.

In ANT, “media” have rarely been addressed explicitly, but the theoretical and methodological agendas of ANT indirectly accommodate the media (Thielmann, 2013, as cited in Spöhrer, 2017). The concept of performance, or the network of relationships between human and non-human actors as an important component of living space, is central to ANT. The events and groups under investigation are considered to be produced by and the result of these practices. Latour (2005) identifies two concepts of performance—intermediaries and mediators:

An intermediary, in my vocabulary, is what transports meaning or force without transformation: defining its inputs is enough to define its outputs. For all practical purposes, an intermediary can be taken not only as a black box, but also as a black box counting for one, even if it is internally made of many parts. Mediators, on the other hand, cannot be counted as just one; they might count for one, for nothing for several, or for infinity. Their input is never a good predictor of their output; their specificity has to be taken into account every time. Mediators transform, translate, distort, and modify the meaning or the elements they are supposed to carry. No matter how complicated an intermediary is, it may, for all practical purposes, count for just one – or even for nothing at all because it can be easily

forgotten. No matter how apparently simple a mediator may look, it may become complex; it may lead in multiple directions which will modify all the contradictory accounts attributed to its role (p.39).

If media are treated as “mediators,” they can no longer be seen as merely representational technologies, and thus are capable of explaining or analyzing essential or inherent logics with regard to relevant elements within the actor-network. Nor can they be treated merely as a means to an end, an instrument that passively serves the interests of producers and consumers. This notion of passive, static media as “channels” has been discussed in the context of the sender-receiver model. ANT-based media analysis asks “how interest groups are negotiated and translated into each other in relation to the composition of their records and purposes” (Spöhrer, 2017, p.11).

Latour (2005) further explains that a macro field is a place connected to many micro fields through some medium. He positions such media as any ties that connect various places, any conduits, any means of transport, any vehicles; various means of transport move through the conduits, carrying recorded documents, writings, materials, and so on. Providing information is the act of putting something into a form, and this form includes various media, for instance, newspaper clippings, reports, maps, and so on. In other words, media are capable of describing formalism in material terms, and this description allows us to take seriously the connective capacity of form (Latour, 2005, pp.429-430).

In ANT, networks are also a methodological research tool deployed to describe the way the collectivities and events are organized and inter-relate (Latour, 2005). Based on ANT, Martins and Dias (2017) researched types of inter-relations for territorial transformation that led to sustainable projects by analyzing conflicts in the establishment of the Southern Right Whale Environmental Protection Area. They argue that “the notion of conflict represents an analytical alternative that reveals the heterogeneity of interests, values, agents and ways of appropriating spaces that are in place in different collective groups” (pp.41-42).

Callon (1986) suggests the process of formation, transformation, and collapse of actor-networks can be understood as a dynamic process consisting of moments of “problematization,” “interessement,” “enrolment,” and “mobilization.” In problematization, the main actors list and define other actors to achieve their objectives. It is necessary to clarify the location of problems that differ among actors, and the main actor itself must be in a position to coordinate them. Next, in the interessement phase, new actors are brought in as concrete interest devices to prevent the actors defined in problematization from turning to other networks and to direct the interest of other actors to the main actor. The role of problem coordination is demonstrated through concrete actors. In the enrolment phase, relationships created by the various interests are made stronger and accepted by all actors. The

interests of the main actor may be overturned by changes in other conditions, requiring persistent negotiation. In the mobilization phase, the agreed-upon interests are turned into actions.

Callon applies this process to a scientific and economic controversy over the causes of the decline in the population of scallops in St. Brieuc Bay. He builds a network of actors, defining the status and roles of fishermen, stakeholders, and other humans, in the establishment of scallop aquaculture. Scallops also have a role in the construction of the network and become actors in it. Based on the problematization of the researcher, the status and roles of the actors are defined, the network is built (interessement and enrolment), and practical attempts are made to cultivate scallops (mobilization). The formation of the actor network is also a process of translation from the perspective of the aquaculture researcher as an actor. Whether this process of translation will lead to successful implementation or to failure and the collapse of the network can only be determined after the fact. In this case, the scallops failed to establish themselves in the Bay.

Callon's analysis and identification of moments in the development of a network are particularly relevant to the case of *no-neko* in the Amami Islands.

Research Question and Method

Research Question

Based on ANT, various media, including local media, national media, and social media, used by main actors in their actions to prevent the killing of *no-neko* can be seen as mediators between these actors and also as motivators of their actions. Their actions can be regarded as dynamic processes consisting of Callon's four moments: problematization, interessement, enrolment, mobilization. Based on this, the study made the following research questions.

RQ1: How have media as mediators played a role in each moment of the action against killing *no-neko* for biodiversity conservation?

RQ2: How did the process of translation lead to the result of the zero killing of *no-neko*?

Research Method

The case study covers a period of six years, starting in 2015 when Amami Oshima Cat Countermeasure Council was founded to implement the plan to reduce the numbers of *no-neko* and ending in 2021 when UNESCO announced Amami Oshima, Tokunoshima, Northern Okinawa, and Iriomote Island were registered as UNESCO natural heritage sites. The study used three qualitative procedures:

Qualitative content analysis. Articles related to *no-neko* and biodiversity of the Amami Islands in the following: local newspapers (2015~July 2021), including

Nankai Nichinichi Shimbun, Amami Shimbun, Minami-Nihon Shimbun; national newspapers (2015~July 2021), including Asahi Shimbun, Yomiuri Shimbun, Mainichi Shimbun; campaign site on Chang.org (2017~July 2021), including reports on the site “Protect Cats from Easy Killing that Excludes World Heritage”; blog of Goal Zero and blog of Animal Foundation, chief actors in the campaign against killing *no-neko* (2017~July 2021).

Interviews with stakeholders. In-depth interviews with Amami Nekobu (a non-profit organization for cat protection and promoting proper cat care in the island) and Amami City promoting the cat control plan; informal interviews with those formulating the plan, some nonprofit groups for cat protection, and cat lovers.

Participant observation. Events related to the *no-neko* issue, including *Nyan-tomo* Festival 2018 in Amami Oshima, Amami Environmental Culture Festival 2018 in Amami Oshima, and *Neko-ichi Neko-za* (cat protection culture festival) 2018 in Tokyo; fieldwork at Uken Village and Amami City from 2015 to March 2020.

Linking *No-neko* Protection Activities with Biodiversity Conservation

In ANT, network formation tells a story; it is a description, a proposition in which all the actors are doing something (Latour, 2005). This section describes the case in the following order: 1) process leading to the formulation of the plan; 2) main actors in the process of actions against killing *no-neko*; and 3) the four moments in the process.

Process Leading to the Formulation of the Plan

The issue of *no-neko* in Amami Oshima first appeared in the Amami Archipelago Nature Symbiosis Plan 2003. At that time, the focus was on the proper breeding of domestic cats. Amami Oshima Wild Dog and Cat Countermeasure Study Group was launched in 2008. That year, a shocking photo of a *no-neko* holding a Amami black rabbit in its mouth was taken by a monitoring camera. This photo has been shown repeatedly in local media since then. An ordinance on proper breeding and management of domestic cats was enacted in 2011. Amami Oshima *No-neko* Countermeasure Working Group (ACWG) was formed in 2013; it comprised five Amami Oshima municipalities, veterinary associations, and nonprofit organizations related to wildlife and animal welfare. Its task was to discuss and plan a countermeasure.

The countermeasure in a narrow sense was to remove the *no-neko* that preys on rare wildlife living on the mountain. However, the cats of interest were not limited to feral cats, but included stray cats such as abandoned domestic cats living outdoors in the island. Japanese society tends to honor certain animals, such as cats, because of indigenous views of animals. The emotional and social resistance to killing captured

cats is extremely high, unlike other animals such as mongoose. As such, it is difficult to think about the issue in a broad sense by subtracting people's consciousness and feelings.

Therefore, ACWG needed to construct a series of mechanisms: "proper breeding → capture → protection and housing → transfer." It would involve people outside the island as recipients of the cats. Experience, knowledge, understanding, and values related to this issue differed among residents, making it difficult to create and operate (Oguri, 2019). In 2016, Amami Cat Network, a group raising awareness of feline issues and educating people about proper cat care, joined ACWG for discussing this more carefully. ACWG held various events for islanders, including study sessions, symposia, and classes, to explain the *no-neko* issue and biodiversity on the island. The style and contents of these events varied; for instance, some events invited leading scholars from Japan and elsewhere to discuss the issue, while others involved elementary, middle, and high school students in learning through arts and sciences. Face-to-face communication was important for discussion and for forming common understandings. Booklets were also used for public awareness. All events were reported by local media, including local newspapers, community radio, and CATV on the island. In those media, their photographs of *no-neko* capturing Amami black rabbit and dead bodies of the rabbit were frequently appeared.

The dissent was not simply about killing cats. In fact, there was a sense of unavoidability – this might have to happen to preserve the ecosystem – and many called for calm argumentation. After careful discussion for almost four years, ACWG finally decided on a plan, "*No-neko* management plan for ecological conservation in Amami Oshima" in 2017. The plan established the mechanisms mentioned above and included euthanasia, if unavoidable.

Main Actors in the Process of Action against Killing No-Neko

Even in a closed position, there are differences in knowledge and value recognition based on thoughts and biases, and with the announcement of the plan, a collision occurred. In September 2017, immediately after the plan to reduce the numbers of *no-neko* was announced, a group of animal welfare nonprofit organizations located outside the island started a campaign on the Internet (Chang.org), "Protect cats from easy killing that excludes World Heritage," an anti-signature activity against the plan, particularly euthanasia. The group included two leading nonprofit organizations, Goal Zero and Animal Foundation, both led by veterinarians and well-known for promoting and performing TNR to reduce the number of cats to be killed in Japan. Goal Zero was particularly active in opposing the killing of *no-neko* and also in acclimatizing *no-neko* and finding homes for them as transferees.

As shown in Table 1, the main actors were four key human actors and two non-human actors.

Table 1. Main Actors

Plan execution	Against the plan	Object of the plan
Amami Oshima Cat Measures Council Created guidelines for implementing the transfer of <i>no-neko</i> , operating cat shelters, spaying and neutering and transferring cats	Goal Zero A nonprofit organization of young veterinarians promoting the sterilization of cats. Leader of action against the killing of captive cats and transferring them instead	Amami Black Rabbit A rare species living in mountains, preyed upon by <i>no-neko</i>
Amami Cat Network A group raising awareness of feline issues and educating people about proper cat care A group consisting of Amami Ornithologists' Club, Amami Mammal Research Group, and Amami Nekobu.	Animal Foundation Promoting TNR /Opposing the killing of captive cats and proposing TNR instead	Amami No-neko Living in mountains and captured by trapping

Four Moments in the Process

This study traces the case from the standpoint of the group opposed to killing *no-neko*, particularly Goal Zero who played a central role.

Problematization. To protect rare species on Amami Oshima for UNESCO nature registration, ACWG proposed capturing *no-neko* to reduce their numbers, and to make maximum efforts to transfer captured *no-neko*, but in some cases to euthanize them. In response, animal welfare groups, veterinarians, and individuals who opposed killing immediately formed a group. All members worked outside the island; half were from Okinawa, an hour to Amami by plane, and half were from Kanto region, including Tokyo, Kanagawa, and Saitama prefectures (see Table 2). The group started a social campaign on Change.org on September 19, 2017. Dr. Tomoko Saito of Goal Zero, a veterinarian working at her own hospital, became a group leader and a representative of the campaign.

They collected 30,000 signatures within a month; these were submitted to the Ministry of the Environment, UNESCO, IUCN, Governor of Okinawa Prefecture, Governor of Kagoshima Prefecture, Amami City, Tatsugo Town in Oshima County, Council for Cat Control in the three Towns of Tokunoshima, and Study Group on Invasive Alien Cats. The signatures were hand-delivered to the Ministry of the Environment, Okinawa Prefecture, and Amami City. A press conference was held at that time, and local newspapers in Okinawa and Amami covered the news. Thus, local people learned many people outside the island opposed the Amami *no-neko*

plan.

Table 2. Leaders of the Social Campaign

Goal Zero	(Nonprofit, Tokyo)
Hope to Life team ZERO	(Nonprofit, Saitama)
Ryukyu Wannyan Yuimaru	(Nonprofit, Okinawa)
Cherubims Animal Home	(Nonprofit, Okinawa)
Ones Partner	(Nonprofit, Okinawa)
Yamaguchi Veterinary Hospital	(Kanagawa)
Etsuko Izumi	(Film director, Tokyo)

The articles were archived and featured with photos on Goal Zero's blog and campaign site. For instance, Dr. Saito reported her visit to Amami City to submit the signatures on Goal Zero's blog on April 15, 2018.¹ She explained in detail what the submission looked like and the reaction of the person in charge and included a photo of an article in the local newspaper. She described her talks with various people during her visit, illustrating her understanding of and sympathy for people involved in implementing the plan, as well as the difficulties the island faced:

We were able to hear from the local government, veterinarians, and volunteers, and it seemed that the awareness of dog and cat owners was still far off compared to the urgency of the rare species that must be protected. No one in the local government is willing to kill them. Volunteers are also desperate to save as many animals as possible.... From the viewpoint of rare species protection, it is becoming more and more difficult for cats to survive outdoors on the island.

She mentioned Amami Nekobu, the only nonprofit organization for cat protection on Amami Ohshima. Amami Nekobu argued euthanasia was unavoidable as a worst case scenario, and as a member of the Amami Cat Network, it worked very hard for the coexistence of cats and rare species on the island.

An article in Amami Shimbun, a local newspaper, on April 14, 2018, the day after the signatures were submitted, was entitled "Oppose the easy killing of cats." The article explained the reasons for the opposition to the killing of cats and the submission of the collected signatures. It also described the exchange of opinions between Dr. Saito and the section chief in charge of Amami City: the city's idea of solving the cat problem with the cooperation of various people. Dr. Saito's idea of

¹ <https://ameblo.jp/npgoalzero/>

cooperating from outside the island to solve the problem was also mentioned.

In this way, those opposed to killing cats learned how their actions could contribute to the opposition to killing *no-neko* and how people on the island thought and felt about the issue. Most importantly, they learned how the two ostensibly opposed stakeholders connected and communicated, a story rarely told in mass media.

Interessement. In 2018, the Ministry of the Environment finally started *no-neko* capture. If a foster home was not found within a week, the *no-neko* was to be euthanized. To become a foster home for a *no-neko*, people needed to apply to a certified transfer agent. There were two types of agents: those working to find a new lifetime caretaker, and those keeping a cat for themselves. Either case required an applicant to follow the process of transfer shown in Table 3. This was a burden for anyone, particularly people living outside the island.

Table 3. Process of Transfer²

1. Submit an application to be certified as a transferee.
2. A screening committee examines whether or not to certify the applicant as a transferee.
3. The approved transferee must attend a pre-transfer training session at the Amami Noneko Center.
4. Once the cat is captured, information and photos of the cat will be sent to the person to whom the cat is to be transferred.
5. If you wish to take the cat, please contact the council for matching.
6. After matching, apply for the transfer of the cat you wish to take in.
7. The cat will be spayed or neutered and microchipped before being transferred.

Some members of the group opposed to killing cats, notably Goal Zero, applied to be certified transfer agents. Dr. Saito of Goal Zero began to visit Amami Ohshima regularly. She brought back stray and abandoned cats that had been sheltered by local veterinarians and volunteers. These cats (*no-neko*, stray cats, protected cats) were simply called “Amami cats,” and after necessary care, they were offered to foster homes. Each of these cats was given a name, and its story appeared on the blog, along with cute pictures.

In July 2018, a cultural festival for protected cats called *Neko-ichi Neko-za* was held in Tokyo; more than 3,000 cat lovers got together for shopping, performances, and events related to cats. There was a talk on the Amami *no-neko* issue with Dr. Saito, an owner of an ex-*no-neko* captured on Chichijima Island, and the representative of Neco Republic, the festival producer. The representative of Amami

² <https://www.city.amami.lg.jp/kankyo/noneko.html>

Nekobu was asked to join the talk, but the airfare was too expensive for her to come. Obviously, most participants were opponents of the plan, not islanders. They discussed the case of Chichijima Island in 2010, when all the captured cats were transported to veterinary hospitals in Tokyo, where they were examined, treated, and acclimatized before being handed over to foster parents. An owner of an *no-neko* captured in Chichijima said *no-neko* became accustomed to people easily and had a lovely existence. After listening to these stories, most participants became even more critical of killing *no-neko*.

In August 2018, Dr. Saito brought a captured *no-neko* back from Amami with her. She called it “Amano-kun” and described its acclimatization process through videos and photos on the blog. Stories about her *no-neko* included air transportation, giving the *no-neko* a name related to Amami, acclimation, trials at a foster home, and the foster home’s decision. After this, every time she brought *no-neko* captured from Amami, she included their stories on the blog and in other social media, which were never seen in the local Amami media.

Dr. Saito and other members of the group visited Amami every month as transfer agents. During their stay, they frequently participated in night tours during which they could observe rare wildlife, such as the Amami black rabbit. They introduced the beauty of these rare species who were living creature, not dead bodies, on their blogs, along with pictures and videos. In addition, they gradually learned Amami words (i.e., hello, thank you, wow) and used them in the blog to explain how wonderful Amami’s nature and culture were, emphasizing the necessity of the coexistence of rare animals and *no-neko*. They also found the process of transfer was too burden for transferees. Eventually, they submitted a written request for improvements in the transfer process to Amami City. This became a news in a local newspaper of Amami.

Meanwhile, the Animal Foundation, another leader of the social campaign, launched “Amami Sakuraneko Project” in Amami Ohshima by submitting a proposal to five municipalities of Amami Ohshima in June 2018. In August 2018, the Foundation opened the Amami Sakuraneko Hospital to sterilize cats in Amami Oshima. The goal was to reduce the number of cats living outside in Amami Oshima and contribute to the conservation of the original island ecosystem. All operation fees were paid by the Foundation. The hospital was closed in June 2019.

The Animal Foundation frequently reported on the project’s activities, cats on Amami Ohshima, and captured feral cats on blogs, and other social media platforms. Based on their experiences, some statistical data, and observations at the hospital in Amami, the representatives of the Animal Foundation often severely criticized the killing of *no-neko* on the campaign site and on their blog³.

³ <https://www.doubutukikin.or.jp/activitycat/amami/>

Enrolment. In April 2019, *Bunshun*, a popular magazine, published the article “Amami Oshima plans to kill 3,000 cats in search of World Heritage,” criticizing the killing of *no-neko* on Amami. The article appeared on major news sites, portals, and SNS, gaining the attention of major media outlets, such as national newspapers and television, including NHK (national public broadcasting). Predictably, animal welfare groups and cat lovers reacted negatively and quickly, and the number of signatures protesting the plan increased. Amami City Hall and Amami Nekobu received numerous phone calls and emails of condemnation and criticism; this interfered with work and even caused emotional damage. Kyuno (2019), a representative of Amami Nekobu wrote, “There is an atmosphere where the commitment to zero killings is too strong, and even the negative facts of the impact on society and the natural environment should be visible, but because it [cat] is close to people, it is easy to be an emotional argument” (p.110). In an interview for this study, Kyuno said she was scared to answer the phone when it rang from a Tokyo or Osaka area code, as most of these calls criticized killing cats, and some comments were vicious, such as “die!”

By 2019, the social campaign had collected 75,000 signatures. Dr. Saito and anti-killing group members met with Diet members who were interested in animal welfare. They talked with officials from the Ministry of the Environment and handed an open letter of inquiry to Amami Oshima Cat Measures Council. These activities were reported on their blog as usual.

The number of cats caught had been increasing, and there was a limit to the number of cats that could be cared for by those who transferred them. It was necessary to increase the number of volunteers to take care of the Amami cats. At Goal Zero, the number of caretakers increased, and the network for the transfer of cats expanded.

Mobilization. In October 2019, Amami Oshima Cat Measures Council revised the transfer guidelines to make it easier for people to apply to be certified transfer agents, to take care of *no-neko* transferred, and to increase the number of caretakers. A local Amami newspaper covered the news, quoting the person in charge as saying, “We have made improvements based on the opinions of certified transfer agents.” This news was reported on the Goal Zero blog, along with a photo from the article. On March 1, 2020, the blog reported 169 *no-neko* had been captured and more than 100 cats had been transferred by Goal Zero. Local newspapers in other areas became interested in the issue, particularly focusing on the story of how *ex-no-neko* could find a foster home.

Goal Zero planned a panel photo exhibition of Amami *no-neko* who had found homes, and held it at an Amami cuisine restaurant in Tokyo for two months. Cats shown in the exhibition were introduced on their blog as well, and the blog said the cats had happy lives in their foster homes. A call for foster parents was also made at the exhibition. Despite COVID19 restrictions, the exhibition was well received, and

it became a traveling exhibition. It was covered in the local Amami newspapers, along with photos.

In 2020, Goal Zero frequently showed the number of *no-neko* transferred by them on their website, along with a photo of articles from the local Amami newspaper, giving in detail the number of *no-neko* captured and transferred. In March 2020, Kyuno, a representative of Amami Nekobu, vented, “We still can’t do it by ourselves, and we have to ask outside people to transfer *no-neko* captured.” She also said that her group wanted to concentrate more on promoting TNR for the cats on the island.

In November 2020, Goal Zero created a “*No-neko* channel” on Youtube, showing well-behaved ex-*no-neko* who were waiting to find a foster home.

Discussion and Conclusion

The first research question asked how media as mediator played a role in each moment of the process of the actions protesting the killing of *no-neko* for biodiversity conservation. The study found media played the following roles:

- Explained the role of certified transfer agents;
- Showed the acclimatization process of transferred *no-neko* and explained the good qualities of Amami cats;
- Informed the public on the status of ex-*no-neko* who had been adopted;
- Pointed out the problems with the transfer system and proposed solutions to various stakeholders;
- Asked for supporters of the transfer system to solve the problem;
- Discovered and conveyed the beauty of Amami’s biodiversity including Amami black rabbit and culture from an outsider’s perspective, that turned their supporters into Amami fans.

In this case, this is not talking simply about the blog of a person who certified the transfer of *no-neko*. Nor was it a blog of the campaign’s leader. Rather, Goal Zero’s blog was a medium that deepened understanding of and interest in Amami’s culture and coexistence with a variety of creatures, as well as the importance of keeping Amami’s cats alive, while pointing out management issues based on its experiences as a transfer agent.

The local newspapers in the Amami islands sometimes reported on the activities of the transferees opposed to killing *no-neko*. The islanders could not know the stories of the captured *no-neko* or the results of the Amami transferring project. In this respect, the local newspapers linked the people involved in the project on the island and the transferees outside the island. At the same time, they encouraged dialogue rather than confrontation and motivated people to consider becoming agents

for captured *no-neko*.

In contrast, the reports and articles in the major media promoted confrontation rather than dialogue, as they tended to look for sensational news. As these media reports spread through SNS, confrontation and criticism became even greater, making dialogue more difficult. In other words, these media tied together the people who were against the killing of *no-neko* in nationwide or even global networks.

The second research question asked how the process of translation led to the zero killing of captured *no-neko*. By the time the islands were registered as a UNESCO World Natural Heritage, the euthanization of cats was no longer on the table. This was clearly the result of the efforts of the people who transferred *no-neko* and who did not want to kill captured *no-neko*. But it was not only the result of the actions of people aiming for zero killing. By visiting Amami Oshima to transfer *no-neko* and thus actually seeing Amami's nature and culture, and more importantly, the rare animals they were trying to protect, the agents outside the island understood the necessity of not only protecting the Amami *no-neko*, but also protecting both *no-neko* and rare animals. Although the ultimate goal was to eliminate the killing of *no-neko*, in order to achieve this goal, the agents not only worked to transfer *no-neko*, but also worked to get more people to become transferees. The people involved in the original plan acknowledged this and made improvements accordingly.

Ultimately, it is argued that the transferees were not opponents of the original project, but rather became an integral part of the project's progress, and the local Amami newspapers and media, as well as the transferees' media, conveyed these relationships and results. Each medium played a different role linking stakeholders, and as a result, the actor network became complex. The complex actor network, in turn, led to the result of zero killing.

In conclusion, based on Actor-Network Theory, this study has illustrated how media as mediators tied together actors with varied interests, including major groups implementing the *no-neko* control plan, opponents of the plan, *no-neko*, and the Amami black rabbit. In 2019, Kagoshima Environmental Study Group of Kagoshima University published *Feral Cat in Amami: Cat Asks*. In the introduction, Oguri (2019b) says the purpose of the book is to: (1) document Amami's efforts to deal with the cat problem in detail and provide a resource for thinking about the problem; (2) clarify the complexity of the issues surrounding invasive alien species and ecosystem conservation and present solutions; and (3) offer a model for how universities can deal with local issues.

The book records the history of the issue in considerable detail. It depicts the panorama of the *no-neko* problem through a combination of vivid descriptions by parties directly involved in the problem (government, citizen groups, nature conservation officers of the Ministry of the Environment, etc.). The book also explains the psychological aspects, such as the thoughts and anguish of the people involved. There are some gaps, however. For example, the perspective of the

transferees involved in the transfer process should have been included. In addition, the media played an important role in the process and should have been documented.

In this respect, this study is significant in understanding the role of the media in connecting and motivating the actors, the transferees, and the people involved in the project from the beginning. It presents a new way of understanding the media as mediators based on Actor-Network Theory, thus making a significant contribution to the study of environmental issues and media. As Latour (2005) points out, ANT research is ongoing. This study should encourage others to continue to trace the actors and media related to the issue of the Amami Islands' *no-neko*.

Note

The original version of this paper, entitled “The *No-neko* Issue in Amami: Media Analysis based on Actor-Network Theory,” was presented at Japan Society of Island Studies Conference 2021, September 5, 2021.

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