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Title: The Fate of Pet Otters -Warning by Vets-

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1 Abstract:

2 Clinical data of 20 pet otters treated at two animal hospitals in Japan from August 2010

3 to May 2019 was collected. Most otters were in critical situation or already dead when

4 they were brought to the hospital. All otters were identified as Asian small-clawed otter

5 and kept privately at the owner's house or otter cafe. Regarding to diseases otters suffered,

6 kidney stone was observed most, second one was pneumonia and third one was

7 dehydration. Most otters looked thin due to the inadequate nutrition. The inappropriate

8 environment was the most frequent cause of diseases on pet otters. Second was the

9 inadequate nutrition and third one was the stress. Two otters with stress-related illness

10 were all kept in the same otter cafe where petting by unknown people caused huge stress

11 on otters. Laws regarding to the Asian small-clawed otters in Japan are listed to point out

12 the problems. In this study, 9 otters were found to have been imported illegally (No. 4-8

13 and No. 13). In conclusion, first, the basic management knowledge of the Asian small-

14 clawed otter should be informed well to the public before owning it. Second, the

15 improvement of law enforcement regulation on otters is a key factor for more effective

16 otter protection in Japan. From the point of view on the animal welfare, the current

17 situation of pet otters has to be improved as soon as possible to prevent more tragic deaths.

18 We hope that this information can contribute for better protection of otters.

19

20 Keywords:

21 Disease, Management of wildlife, Veterinary, Wildlife law

22

23 **Introduction:**

24 As many articles report, otters are becoming one of the most popular animals in Japan

25 these days (The New York Times, 2019). However, too much popularity is causing many

26 serious problems such as the illegal pet trade, poaching or business use for commercial

27 facilities including otter cafes (McMillan, 2018, TRAFFIC JAPAN, 2018). One of the

28 biggest reason that Japan has become a hot market of the otter trade must be because of

29 the high retail price of an otter, it has reached over 300 times the reported black market

30 price in Thailand (USD30 in Thailand compared to USD9,000 per juvenile or more in

31 Japan) (TRAFFIC JAPAN, 2018).

32 Usually, the Asian small-clawed otter (*Aonyx cinereus*) is kept as an individual pet or

33 exhibited in the otter cafe in Japan because this species is listed on CITES Appendix II,
34 which is not protected under the Law for the Conservation of Endangered Species of Wild
35 Fauna and Flora that regulates domestic trade of animals (McMillan, 2018). In addition
36 to the not-regulated trade, there is no any domestic registration system or management
37 guideline of pet otters, which makes much easier to keep this species in captivity.

38 While the easiness of getting an otter, it is quite hard that people keep it properly in the
39 own property because it needs a big space, semi-aquatic environment and variety of foods,
40 which demanded amount reaches 20% of its body weight per day (Heap et al., 2008).

41 Also, the otter has strong smell on feces and powerful jaw that even can crack the shells
42 crustaceans, which is totally not suitable for private keeping.

43 However, insufficient information on the situation and disease of pet otters is available
44 worldwide and the people's demand on pet otters has kept growing through the social
45 media (The New York Times, 2019). To reveal the truth and stop the inappropriate private
46 keeping of otters, the survey on treated pet otters at the animal hospital in Japan was
47 conducted and showed in this report.

48

49 **Approach**

50 Clinical data on private owned otters was collected at two animal hospitals in Nagoya and
51 Tokyo, Japan from August 2010 to May 2019. In addition to the basic information of the
52 treated otters (Age, Sex, Body weight and Disease), the estimated cause of disease and
53 other features were recorded. However, age is only based on the owner's information.

54

55 **Results and Discussion**

56 Totally, 20 cases on the pet otter treatment were recorded and most otters were in critical
57 situation or already died when they were brought to the hospital (Table 1). All otters were
58 identified as the Asian small-clawed otter and kept privately at the owner's house or otter
59 cafe.

60 Many serious symptoms were observed on these treated or dead otters such as the kidney
61 stone (Figure 1), dehydration and pneumonia (Figure 2), the bite injury (Figure 3), dental
62 problem (Figure 4) or alopecia (Figure 5). In decreasing order of its percentage, kidney
63 stone was observed most, second one was pneumonia and third one was dehydration
64 (Figure 6). Most otters looked skinny and a 4-month otter (No. 14) was especially bony,

65 which had only 450g weight. Based on the database of studbook, it was found to be almost
 66 the same body weight with a 50-days old otter. In addition to that, there was no any food
 67 left in stomachs of two dead otters (No. 2 and 3) and the gallbladder of No. 3 even
 68 enlarged because of the chronic hunger. The average year of otters at the death observed
 69 in this study was only 1 year and 7 months old, which is much earlier than the normal life
 70 span in captivity.

71

72 Table 1. Data of treated otters at two animal hospitals in Japan from August 2010 to May
 73 2019.

No.	Species	Age	Sex	BW (kg)	Disease	Kept place / Import	Dead / Died
1	ASCO	6 yrs	F	2.34	Kidney stone	House	Died in 18 days
2	ASCO	3 yrs 6 mths	M	2.8	Hypothermia	House	Dead when found
3	ASCO	2 yrs 4 mths	F	3.08	Asphyxiation	House	Dead when found
4	ASCO	1 mths	F	0.2	Dehydration, Pneumonia	Import	Died in 2 days
5	ASCO	1 mths	F	0.25	Dehydration, Pneumonia	Import	Died in 3 days
6	ASCO	1 mths	M	0.35	Dehydration, Pneumonia	Import	Died in 5 days
7	ASCO	1-2 mths	F	0.55	Dehydration, Pneumonia	Import	Died in 14 days
8	ASCO	2-3 mths	M	0.95	Dehydration, Pneumonia	Import	Died in 30 days
9	ASCO	3 yrs	M	3	Kidney stone	House	Dead when found
10	ASCO	4 yrs	F	3.5	Kidney stone	House	Dead when found
11	ASCO	4 yrs	F	2.8	Kidney stone	House	Dead when found
12	ASCO	1 yrs 9 mths	F	2.3	Bitten injury, Ulcer	House	-
13	ASCO	4 mths	M	0.45	Pneumonia, Renal insufficiency	Import	-
14	ASCO	8 mths	M	0.22	Bitten injury, Ulcer	House	-
15	ASCO	2 yrs	F	0.23	Self bitten injury, Kidney stone	House	-
16	ASCO	2 yrs	M	0.32	Kidney stone	Otter Café	-
17	ASCO	1 yrs 8 mths	F	3	Alopecia, Kidney stone	Otter Café	-
18	ASCO	3 mths	F	1.4	Asphyxiation, Cerebellar dysfunction	Otter Café	-
19	ASCO	2 yrs 2 mths	M	4	Kidney stone	Office	-
74 20	ASCO	6 mths	F	1.95	Hematochezia, Kidney stone	Office	-



75

76 Figure 1. A female otter (No.1) died due to the kidney stone, which was fed only cat foods
77 and human biscuits.



78

79 Figure 2. An otter cub (No. 4) died because of the dehydration and pneumonia occurred
80 during the inappropriate import process.

81



82

83 Figure 3. A female otter (No. 12) seriously injured due to the bite by a male otter.



84

85 Figure 4. A male otter (No. 16) kept in the otter cafe had a serious dental problem.

86

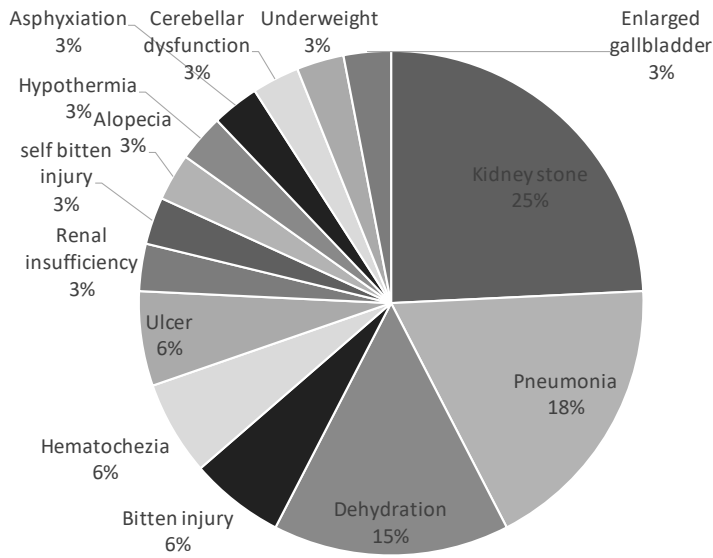


87

88 Figure 5. A female otter (No. 17) had an alopecia which might be occurred by the petting

89 stress at the otter cafe.

90

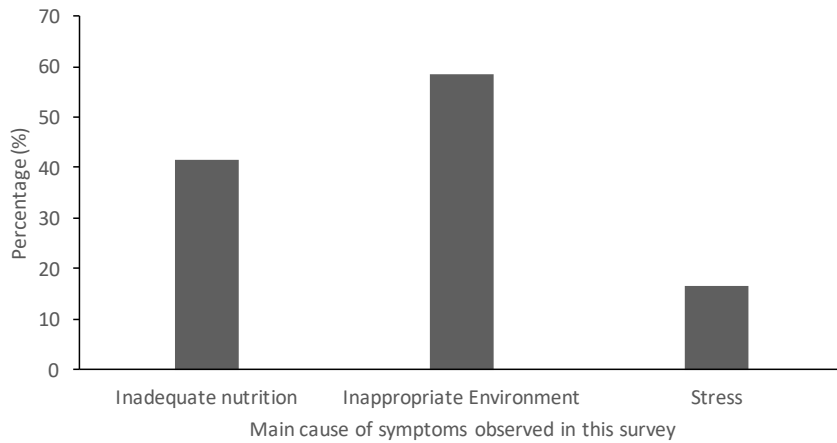


91

92 Figure 6. Symptoms on treated or dead otters observed during this survey.

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94



95

96 Figure 7. Main causes of diseases and injuries on otters observed during this survey.

97

98 In terms of the causes of these symptoms on otters, the inappropriate captive environment

99 such as the cold temperature, no-aquatic equipment or unsuitable attempt of breeding was
100 the most frequent cause (58%). Secondly, many diseases such as the kidney stone or
101 hematochezia were occurred due to the inadequate nutrition. Especially, it was revealed
102 that some owners did not give enough amount of food to otters on purpose to make otters
103 have less strong-smelled feces. Thirdly, some symptoms related to the mental problem
104 were also observed, for example; the self-bitten injury and alopecia. Two otters with these
105 stress-related illness were all kept in the same otter cafe and it was estimated that petting
106 by unknown people for long hours might have caused huge stress on otters.

107 Regarding to the life span, the Asian small-clawed otter normally lives 10-15 years and
108 up to 20 years in captivity (Perdue et al., 2013), however, the average year of otters at the
109 death observed in this study was only 1 year and 7 months old, which is much earlier than
110 the normal life span. To determine how the inappropriate feeding exactly affected to the
111 otters observed in this study is difficult because it is also reported that the Asian small-
112 clawed otter is easy to get the kidney stone in captivity even under the appropriate care
113 (Petrini et al., 1999). However, while wild otters forage for a wide variety of foods
114 including fish, crustaceans, frogs or small birds (Heap et al., 2008), these pet otters were

115 normally only fed cat foods or human foods with high-salt, which would have caused the
116 serious nutritional problems.

117

118 **Law Enforcement on the Asian small-clawed otters in Japan**

119 Law enforcement is very important as an effective tool to protect wildlife. To discuss the
120 problem of law system of Japan, laws regarding to the Asian small-clawed otters are listed
121 here.

122 *Import*; in Japan, the international wildlife trade is normally regulated by the Foreign
123 Exchange and Foreign Trade Act and Customs Law. Under these laws, people can import
124 the Asian small-clawed otters even for the business if they get the permission.

125 Among 20 cases observed in this study, 9 otters were doubted to have been imported
126 illegally because some owners were criminally charged later (No. 4-8 and No. 13).

127 *Domestic trade*; As mentioned above, the domestic trade of CITES Appendix I species is
128 controlled under the Law for the Conservation of Endangered Species of Wild Fauna and
129 Flora; however, the same control does not apply to Appendix II species, such as the Asian
130 small-clawed otter. In addition to this law, people have to show the origin of animals when

131 the trade is conducted under the Act on Welfare and Management of Animals. However,
132 many smuggled otters are also traded in the domestic market, therefore, the effectiveness
133 of this law is suspicious.

134 *Private keeping*; all pet animals including otters should be kept well with a suitable
135 environment under the Act on Welfare and Management of Animals. Also, if the Asian
136 small-clawed otter is designated as a “specified animal” that carries a risk of causing harm
137 to the life, people have to get the permission of the prefectural governor before keeping
138 otters under this law. However, there is currently no any domestic registration system or
139 management guideline on this species in Japan. For the better captive management and
140 prevention of tragedies occurring on pet otters in this country, the law enforcement should
141 be improved as soon as possible.

142

143 **Conclusions**

144 While the critical situation of the illegal otter trade and business use such as an otter café
145 in Japan have been warning in recent years, the private keeping condition was much
146 unclear due to the lack of registration system or monitoring by the government. This time,

147 the first sight of the inappropriate management of pet otters kept privately in Japan was
148 provided.

149

150 First, the basic management knowledge of the Asian small-clawed otter should be
151 informed well to the public before owning it. It was revealed through this survey that
152 many otters are kept in the poor environment with the inadequate nutrition, which causing
153 the tragic deaths of this species. However, this information collected in two animal
154 hospitals is the tip of the iceberg and further investigation is necessary.

155

156 Second, the improvement of law enforcement regulation on otters is a key factor for the
157 more effective protection of otters in Japan. The obligation of registration or management
158 situation inspection of pet otters can prevent the easy acquisition and lead the decrease of
159 the demand on keeping otters as pets. In addition to otters, many exotic species are
160 currently kept privately as pets (McMillan, 2018), therefore, the whole law system
161 regarding to the wildlife management should be reconsidered.

162

163 From the point of view on the animal welfare, the current situation of pet otters has to be
164 improved as soon as possible to prevent more tragic deaths. We hope that this information
165 can contribute for better protection of otters.

166

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171

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