バングラデシュのイノシシ型在来ブタと小耳種

在来家畜研究会報告 25 111－116 (2010)
Rep. Soc. Res. Native Livestock 25 : 111－116 (2010)

Local Pigs Resembling the Wild Boar and the Short-eared Pigs of Bangladesh

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Abstract

The present study clarified the difference of geographical distribution between domestic pigs resembling the wild boar, called wild pig type, and the short-eared pigs of Bangladesh. That is, the wild pig types are reared mostly in the plain areas and the short-eared pigs in the limited plains, and mountainous areas of the east side of the country. Nomadic feeding of the pigs is observed in the plain areas of Bangladesh. The local pigs of the wild pig type were specifically kept using that feeding system. In the field surveys there were some cases that were not easy to distinguish between the local pigs and the wild boar at first glance. The pigs of this type were not observed in the mountainous areas of the east side, but the short-eared pigs were. Bangladesh most likely shows a border distribution of at least two types of local pigs having different domestication origins.

The number of pigs in Bangladesh is unknown and no estimates exist even in the journal of FAO Productions Yearbook. Since 85% of the population are Muslim and can not keep pigs by reason of their religion, it would seem to be a matter of course that pig farming in the country is not far advanced. However, KUROSAWA *et al.* (1988b) reported that many local pigs were kept only by some of the non-Muslim people in Bangladesh.

These pigs are different morphologically from the Asian pigs, such as the Chinese breeds with large pendulant ears, and the modern breeds, such as the European pigs. They have features resembling the wild boar and also differ from the local pigs, called short-eared pigs, with short ears and a small body, existing in remote areas such as mountains and the islands of South East Asia. Recently KUROSAWA (2005) reported that many local pigs resembling the wild boar are reared in areas of South Asia, including Bangladesh, and they are referred to as local pigs of the "wild pig type". However, we have very little reliable information about them. The purpose of the present report is to show the geographical distribution of the local pigs resembling the wild boar and the short-eared pigs in Bangladesh by a field survey.

Locations for the survey

The survey was performed in twelve districts three times. The districts were Tangail, Mymensingh, Comilla, Sylhet, Chittagong and Rangamati districts on the east side of the Brahmaputra River from December 1985 to January 1986, and in Dhaka and Bandarban districts of the east side including Bogra, Rajshahi, Kushtia and Jessore districts on the west side of that river from December 2007 to January 2008, and in March of 2009.

Results and Discussion

Fig.1 shows distribution of the wild pig type and the short-eared pig observed in Bangladesh. These local pigs are shown in photos of Fig. 2. The local pigs resembling the wild boar, that is, the wild pig type was found in all areas studied, except Rangamati and Bandarban districts on the east side. Their features are generally characterized by a ridge of long coarse bristles extending from the forehead to the middle of the back. In some of these pigs, white hairs were clearly visible around the face and the chest. Their body shape resembles the wild boar and withers height was 52.0 ～ 58.0 cm on females (n=3).

As already discussed by KUROSAWA *et al.* (1988b), a nomadic system of pig production that allows moving the pigs from place to place exists in Bangladesh. The wild pig type pigs appear to be similar to the wild population. An interesting thing is that the piglets in the population have a dark brown coat color with longitudinal yellowish stripes. In the field surveys, some cases were not easy to distinguish between the local pigs and the wild boar at first glance (Fig. 2). Bangladesh has a large number of the Indian wild boar (*Sus scrofa cristatus*) (KHAN, 1985). This wild

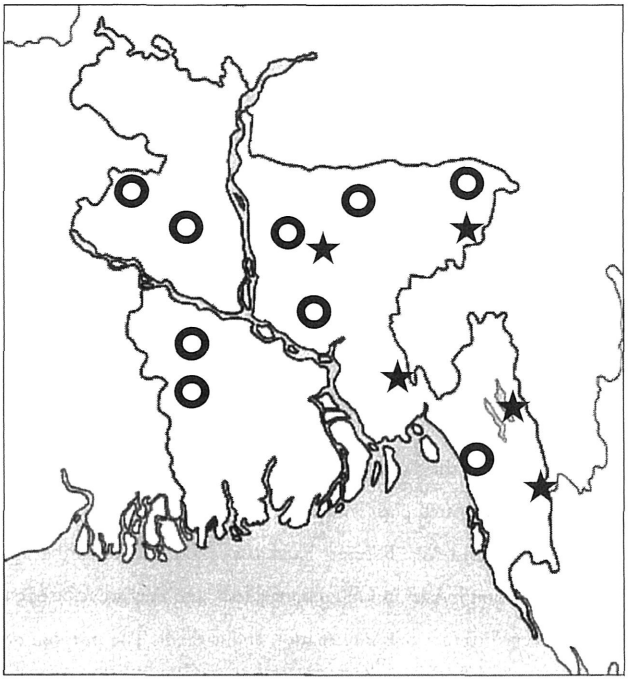

Fig.1. Geographical distribution of the wild pig type and the short-eared pig in Bangladesh.
○ Wild pig type ★ Short-eared pig

Fig. 2. Two local pig types in Bangladesh.

1-2) Wild pig type with highly developed bristles (Tangail and Rajshahi), 3) Wild pig type with coat color similar to the wild boar (Mymensingh), 4) Piglets resembling the wild boar (Jhiridah), 5) Short-eared pig having black coat color with white legs (Bandarban), 6) Short-eared pig having white coat color with black spots (Comilla), 7) Nomadic pigs in the forest (Mymensingh), 8) Nomadic pigs in a wild plain (Kushtia)

animal is one of the wild ancestors of Asian domestic pigs. Although such domestic pigs in Asia have the appearance and features of the wild boar, it is not clear whether there was some introgression of genes from the wild boar or not. Perhaps, when those local domesticated pigs were taken to the forest areas for feeding, there was intercrossing between domesticated pigs and wild boars in the past. The local pigs of the wild pig type were also kept by some farmers in remote regions and by lower caste people in limited areas of the city. It is important to be clear in detail of the conditions under which the pigs are fed, raised and kept in Muslim countries in order to protect them from future extinction.

The wild pig type was not found in Rangamati and Bandarban, but local pigs that do not possess the body shape of the wild boar were kept by hill tribes in those districts. As mentioned above, they are called the short-eared pigs, and they are mostly small and similar to the short-eared pigs found in South East Asia (KUROSAWA, 2005). It was observed in the first survey of 1985 and 1986 that some of those pigs were kept by a minority race of non Bengal people in the Tangail and Comilla districts. However, at the present time it is not clear whether the short-eared pigs are kept by them or not. In the Sylhet district of the north-east side, the short-eared pig was not only found but also the wild pig type, and hybrids between those two were found.

In the surveys of 2007 and 2008, western modern pigs, which were not observed in 1985, were reared by a Christian minority race (Fig 3). Therefore, hybridization of those modern breeds and local pigs may occur in Bangladesh in the near future.

Fig.3. Western pigs that are reared with Bangladeshi local pigs.

The result of these field surveys suggests that the difference of distribution of the wild pig type and the short-eared pigs in Bangladesh reflects the difference in their domestication origins. LARSON *et al.* (2005) proposed multiple centers of pig domestication in the mtDNA study. It is generally said that the *S. s. cristatus* is one of the wild ancestors of domestic pigs. The local pigs resembling the wild boar may be the result of the domestication of the *S. s. cristatus*, because a ridge of long coarse bristles extending to the back observed on them is a typical characteristic of that wild boar. This idea would also be supported by common alleles of biochemical variants that were studied in the *S. s. cristatus* (KUROSAWA *et al.*, 1989) found in the Bangladeshi local pigs (KUROSAWA *et al.*, 1988a).

Then, why do local pigs resembling the wild boar still exist? Bangladesh, a muslin country, does not appear to have imported the pigs from other areas to the Bengali Muslim community, since the country came under Islam in the thirteenth century. Therefore, local pigs which are similar to the wild pig type have kept features of the wild boar since domestication. Also, it is thought that the short-eared pigs have phylogenetic connections with the local pigs in the southern areas of China and Southeast Asia because they are observed in those areas. Research in Bangladesh, therefore concludes a probable border distribution of at least two types of local pigs having different domestication origins.

This work was supported by Grant-in Aid for Scientific Research (B) (No.19405043) from the Japan Society for the Promotion of Science.

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本研究では，バングラデシュにおけるイノシシ型在来ブタと小耳種の分布の違いを明らかにした。すなわち，イノシシ型在来ブタは平地の殆どで，また小耳種は同国の東側の山岳地と限られた平地において，それぞれ飼われていた。平地ではブタの遊牧的飼養が観察され，とりわけイノシシ型在来ブタがその飼養法によって飼われていた。調査ではその在来ブタとイノシシを外見的に見分けることが難しい個体も観察された。バングラデシュは起源を異にする２種の在来ブタの分布境界を示していると考えられた。