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Longicorn Beetles (Coleoptera) Collected in Ashiu Forest, Kyoto, Japan from 2008 to 2014

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Abstract The fauna of longicorn beetles in Ashiu Forest were researched in the 1970s. The degradation of forest understories by deer and mass mortality of *Quercus crispula* caused by *Platypus quercivorus* led great changes in the environment of Ashiu Forest. Here, we recorded 43 species of longicorn beetles in Ashiu Forest based on the survey from 2008 to 2014. Seven species were rare species, which is found from only Ashiu Forest and the nearby area in Kyoto prefecture. Because the host plants of most of longicorn beetles are woody plants, the damages on understories by deer probably have few effects on these rare species. However, it is indispensable to survey the fauna of longicorn beetles continuously in Ashiu Forest, because the decline of woody plants' seedlings by deer and mass mortality of *Quercus crispula* have the potential to decrease the species richness and abundance of them.

Ashiu Forest (lat. 35° 18' N, long. 135° 43' E, alt. 355–959 m) is located about 35 km north of the Kyoto Basin. In Ashiu Forest, very large natural cool-temperate forests are preserved and inhabitations of many rare species were recorded (Environment Agency, 1988; Ohishi, 2002; Sakaguchi *et al*., 2008). The fauna of longicorn beetles were also researched in the 1970s (Watanabe, 1976; Ohishi, 2002). However, the forest understories in Ashiu Forest have been severely degraded by deer since the 1990s (Kato & Okuyama, 2004; Fujiki & Takayanagi, 2008). Mass mortality of *Quercus crispula* caused by *Platypus quercivorus* was also spread in Ashiu Forest since 2004 (Yamasaki & Sakimoto, 2009). Though these led great changes in the environment of Ashiu Forest, the fauna of longicorn beetles in recent years has been poorly known. In this paper, we recorded a list of the longicorn beetles collected in Ashiu Forest based on the recent short survey.

From May 2008 to September 2014, except 2011, the longicorn beetles were collected sweeping the flowers, beating the dead branches, looking the stressed or dead trees, and catching the flying individuals along the trails in Ashiu Forest for the total 11 days. All the individuals were collected and preserved by Naoyuki Nakahama.

Based on the survey from 2008 to 2014, 43 species of longicorn beetles are recorded from Ashiu Forest. The scientific names and arrangements of longicorn beetles' list were based on Ohbayashi and Niisato (2007).

In this survey, many rare longicorn beetles (e.g. *Stenocorus coeruleipennis* (Bates, 1873); *Pidonia dealbata* Kuboki, 1981; *Judolia japonica* (Tamanuki, 1942); *Eustrangalis distenioides* Bates, 1884; *Asaperda agapanthina* Bates, 1973; *Sybra unifasciata* Fujimura, 1956; *Eutetrapha chrysochloris chrysochloris* (Bates, 1879)) were collected. The adults of most of the collected longicorn beetles feeds the flowers or the barks of woody or climbing plants and oviposit in the dead or stressed stands of woody plants (Ohbayashi & Niisato, 2007). Because the deer feeding damage on understories of the forests mainly, the impacts on canopy plants are low at present (Fujiki & Takayanagi, 2008; Sakaguchi *et al.*, 2008). This would be why many longicorn beetles, including rare species might be found there.

However, the seedlings of canopy tree species are decreasing by the deer damage (KATO & OKUYAMA, 2004). In addition, the density of *Quercus crispula* has been decreased by *Platypus quercivorus* (YAMASAKI & SAKIMOTO, 2009). These changes of canopy vegetation might effect on species richness and abundance of longicorn beetles in the future. Little is known about the change of fauna of longicorn beetles in the forest with deteriorated vegetation by deer damage. Therefore, it is indispensable to survey the fauna of longicorn beetles continuously in Ashiu Forest.

The survey was conducted under permit of Field Science Education and Research Center, Kyoto University.

Lepturinae

1. *Stenocorus coeruleipennis* (BATES, 1873)
   1 ex., Nodahata-Kiedani, 9.VII.2013.

2. *Gaurotes doris* BATES, 1884
   1 ex., Chojidani-Nodahata, 31.V.2010.

3. *Lemula rufithorax* PIC, 1901
   1 ex., Sugo-Haino, 3.V.2009.

4. *Lemula nishimurai* SEKI, 1944
   1 ex., Chojidani-Nodahata, 31.V.2010.

5. *Dinoptera minuta* (GEBLER, 1832)
   2 exs., Sugo, 4.V.2008; 2 exs., Sugo-Haino, 3.V.2009.

6. *Pidonia signifera* (BATES, 1884)
   1 ex., Chojidani-Nodahata, 30.V.2010.

7. *Pidonia discoidalis* PIC, 1901
   1 ex., Nodahata-Masukamidani, 19.VI.2014.

8. *Pidonia grallatrix* (BATES, 1884)
   1 ex., Chojidani-Nodahata, 31.V.2010; 1 ex., Nodahata-Kiedani, 18.VI.2013; 1 ex., Nodahata-Kiedani, 6.VII.2013.

9. *Pidonia aegrota aegrota* (BATES, 1884)
   3 exs., Nodahata-Masukamidani, 19.VI.2014 (Only observation).

10. *Pidonia puziloi* (SOLSKY,1873)
    1 ex., Sugo-Haino, 2.V.2010; 3 exs., Chojidani-Nodahata, 31.V.2010.

11. *Pidonia miwai* (MATSUSHITA, 1933)
    1 ex., Chojidani-Nodahata, 30.V.2010.

12. *Pidonia dealbata* Kuboki, 1981
1 ex., Nodahata-Kiedani, 18.VI.2013.
It is found from only Ashiu Forest in Kyoto prefecture (Endo *et al*., 2002).

13. *Pidonia amentata amentata* (Bates, 1884)
1 ex., Sugo-Haino, 3.V.2009.

14. *Pseudalosterna misella* (Bates, 1884)
1 ex., Nodahata-Kiedani, 6.VII.2013.
It is found from Ashiu Forest and the nearby area in Kyoto Prefecture (Endo *et al*., 2002).

15. *Anoploderomorpha excavata* (Bates, 1884)
2 exs., Nodahata-Kiedani, 6.VII.2013; 1 ex., Nodahata-Kiedani, 9.VII.2013; 1ex., Nodahata-Masukamidani,19.VI.2014.

16. *Corennys sericata* Bates, 1884
2 exs., Nodahata-Kiedani, 6.VII.2013; 1 ex., Nodahata-Kiedani, 9.VII.2013.
It is found from Ashiu Forest and the nearby area in Kyoto Prefecture (Endo *et al*., 2002).

17. *Judolia japonica* (Tamanuki, 1942)
1 ex., Nodahata-Kiedani, 6.VII.2013.

18. *Leptura dimorpha* Bates, 1873
1 ex., Sugo-Haino, 30.V.2010; 2 exs., Nodahata-Kiedani, 18.VI.2013; 2 exs., Nodahata-Kiedani, 6.VII.2013; 2 exs., Nodahata-Masukamidani, 19.VI.2014.

19. *Leptura modicenotata* Pic, 1901
1 ex., Nodahata-Kiedani, 6.VII.2013; 1 ex., Nodahata-Kiedani, 9.VII.2013.

20. *Leptura ochraceofasciata ochraceofasciata* (Motschulsky, 1861)
1 ex., Sugo, 9.VII.2013.

21. *Eustrangalis distenioides* Bates, 1884
2 exs., Nodahata-Kiedani, 11.V.2014.
It is found from Ashiu Forest and the nearby area in Kyoto Prefecture (Endo *et al*., 2002).

22. *Japanostrangalia dentatipennis* (Pic, 1901)
1 ex., Nodahata-Kiedani, 9.VII.2013.
It is found from Ashiu Forest and the nearby area in Kyoto Prefecture (Endo *et al*., 2002).

23. *Parastrangalis nymphula* (Bates, 1884)
1 ex., Nodahata-Kiedani, 9.VII.2013.

24. *Leptostrangalia hosohana* (Ohbayashi, 1952)
1 ex., Nodahata-Kiedani, 6.VII.2013.

Cerambycinae

25. *Callidiellum rufipenne* (MOTSCHULSKY, 1860)
1 ex., Sugo-Haino, 1.V.2010.

26. *Phymatodes quadrimaculatus* GRESSITT, 1935
2 exs., Chojidani-Nodahata, 31.V.2010.

27. *Rhaphuma diminuta diminuta* (BATES, 1874)
1 ex., Sugo-Haino, 3.V.2009.

28. *Demonax transilis* BATES, 1884
1 ex., Sugo-Haino, 5.V.2008; 2 exs., Chojidani-Nodahata, 31.V.2010; 1 ex., Nodahata-Kiedani, 6.VII.2013.

29. *Anaglyptus matsushitai* HAYASHI, 1955
1 ex., Nodahata-Kiedani, 18.VI.2013.

Lamiinae

30. *Mesosa japonica* BATES, 1873
2 exs., Chojidani-Nodahata, 31.V.2010.

31. *Mesosa longipennis* BATES, 1873
1 ex., Nodahata-Kiedani, 9.VII.2013.

32. *Asaperda agapanthina* BATES, 1973
1 ex., Nodahata-Kiedani, 18.VI.2013; 1 ex., Nodahata-Masukamidani, 19.VI.2014.
It is found from only Ashiu Forest in Kyoto Prefecture (ENDO *et al.*, 2002).

33. *Sybra unifasciata* FUJIMURA, 1956
2 exs., Haino, 19.VII.2008.

34. *Monochamus grandis* WATERHOUSE, 1881
1 ex., Sugo, 29.VIII.2012.

35. *Acalolepta sejuncta sejuncta* (BATES, 1873)
1 ex., Nodahata-Kiedani, 6.VII.2013.

36. *Rhodopina lewisii lewsii* (BATES, 1873)
1 ex., Sugo, 29.VIII.2012.

37. *Miccolamia verrucosa* BATES, 1884
1 ex., Haino, 2.V.2009.

38. *Mimectatina divaricata divaricata* (Bates, 1884)
1 ex., Chojidani-Nodahata, 31.V.2010; 1 ex., Nodahata-Kiedani, 19.VI.2014.

39. *Pogonocherus seminiveus* Bates, 1873
1 ex., Sugo-Haino, 6.V.2008; 1 ex., Sugo-Haino, 3.V.2009.

40. *Saperda tetrastigma* Bates, 1879
1 ex., Nodahata-Masukamidani, 19.VI.2014.

41. *Eutetrapha chrysochloris chrysochloris* (Bates, 1879)
1 ex., Chojidani-Nodahata, 6.VII.2013.
It is found from Ashiu Forest and the nearby area in Kyoto Prefecture (Endo *et al.*, 2002).

42. *Pareutetrapha simulans* (Bates, 1873)
1 ex., Nodahata-Kiedani, 6.VII.2013.

43. *Glenea relicta relicta* Pascoe, 1868
1 ex., Nodahata-Kiedani, 10.IX.2014.

要　　約

中濵直之・高柳　敦：2008年から2014年に京都府芦生研究林で得られたカミキリムシ（鞘翅目）. ――― 京都大学研究林では1970年代にかけて精力的にカミキリムシ相が調査されてきた. 近年ニホンジカの食害や, カシノナガキクイムシによるミズナラの集団枯損（ナラ枯れ）の進行にともなう研究林内の環境変化が懸念されている. 筆者らは2008年から2014年にかけて調査を行い, 得られたカミキリムシ科昆虫を記録した. 調査の結果, 43種のカミキリムシ科昆虫が得られた. そのうち７種は京都府において芦生研究林もしくはその周辺部のみしか発見されていない希少種だった. カミキリムシ科昆虫は主に木本植物を餌資源として利用するため, ニホンジカの食害による影響は, これら希少種を含めて小さいと考えられる. しかし, シカによる木本の実生の食害やナラ枯れによるミズナラの集団枯損は，将来的にカミキリムシ相に影響を与える可能性があるため, 今後も継続的な調査が必要である.

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