

## Introduction and Possibility of Kumano Cherry: The First New Cerasus-Type Cherry Species to Be Discovered in 100 Years

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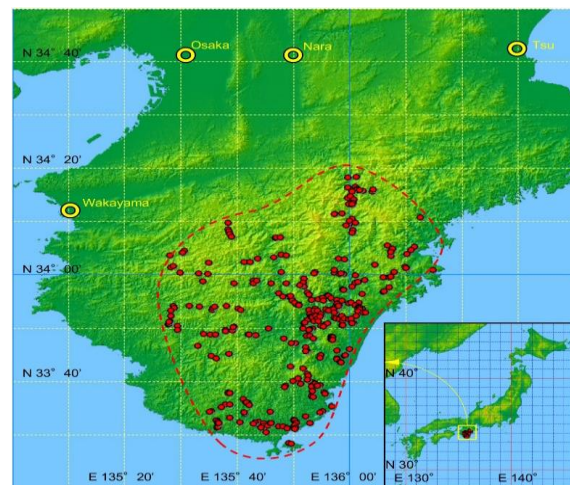
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### INTRODUCTION

Kumano cherry (*Prunus kumanoensis* T. Katsuki) is a *cerasus*-type wild cherry species that was first described in 2018 by Dr. Katsuki, who studies the classification of flowering cherry at the Forestry and Forest Products Research Institute. The species represents the first newly discovered wild species since the discovery of Ohshima cherry (*Prunus speciosa*) in 1915. The species' distribution spans 90 km, from north to south, and 70 km, from east to west, and overlaps with the Mie, Nara, and Wakayama prefectures in the southern part of the Kii Peninsula of Honshu, Japan (Fig.1).

Fortunately, I was able to witness the first discovery of Kumano cherry at Wakayama Pref. in March 2016 and investigated with Dr. Katsuki to the distribution at Mie Pref. As a result of the investigation, the species was also confirmed to occur in Kumano City (Mie Pref.) in July 2016 and has since been confirmed at other locations in Mie Pref., including Kiho, Mihama, Owase, and Kihoku. Many individuals have been identified in Kiwa-cho (Kumano City), and the species' beautiful flowers can be viewed there.



**Figure 1.** Distribution of Kumano cherry. Red dots and dashed lines indicate confirmed localities and estimated distribution, respectively. (Provided by Dr. Katsuki,).

Kumano cherry blooms earlier than Japanese mountain cherry (*P. jamasakura*) or Tokyo cherry (*Prunus ×yedoensis* ‘Someiyoshino’). In Mie Pref., the species begins to bloom between March, in the lowlands of Kiho and Mihama Town, and early April, at the high altitudes of Kumano City. Because

Kumano cherry is a wild species, individual trees differ in flower size, color, and blooming time. However, the flowers generally vary from white to pink. In contrast to Japanese mountain cherry, which blooms after the emergence of leaves, Kumano cherry blooms before leaf emergence and is considered to have high ornamental value. Kumano cherry is also expected to be used as an ornamental tree for parks and gardens because it is smaller and more elegant than Japanese mountain cherry.

Kumano cherry has attracted attention as a tourism resource in the future plan of township in natural habitat, and many activities of protection, preservation and propagation as a new regional treasure have begun. As a first step, the first large-scale planting of Kumano cherry was installed in Kiho and Mihama Town in February 2019. In Kumano City, tree planting has been carried out in the mountainous area of Kiwa-cho as a “Scenery project for Kumano cherry”, and the scenery making for Kumano cherry has begun (Fig. 2).



**Figure 2.** Viewing event at Kiwa-cho for Kumano citizens in March 2019.

The seedlings planted in Mie Pref. were propagated from seed, but in the seedling propagation, a serious problem for the conservation of Kumano cherry may arise. Cherries are self-incompatible, and fertilization requires outcrossing. As such, crossing

occurs among individual Kumano cherry trees but rarely occurs between Kumano cherry and other species. Many cultivars, such as Tokyo cherry, have been introduced to the natural habitats of Kumano cherry, and natural hybrids have been confirmed. This so-called “gene contamination” has contributed to the decline of Kumano cherry. Owing to the high possibility of hybridization in habitats near Tokyo cherry trees, the collection and propagation of seeds from such habitats should be avoided.

Finally, in regard to horticultural appeal, Kumano cherry exhibits variation in floral characteristics (Fig. 3). The species’ petals, for example, may be white, pink, or white to pink. Because Kumano cherry produces numerous flower buds along its branches, it is possible to grow and display the plants in pots, like bonsai. I am trying to grow the excellent individuals found during the survey by grafting and confirming their characteristics with the help of Dr. Katsuki. Collection of seeds and branches was accomplished with permission from the owner of trees. In the near future, I would like not to offer Kumano cherry from Mie Pref. to various towns in Japan and to introduce it to the world as a beautiful flowering cherry.



**Figure 3.** Kumano cherry with pink and white petals. It appears beautiful and light red when viewed from a distance.