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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 20556-2026

Replacing GB/T 20556-2006

Swimming crab

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1. Structure and Drafting Rules of Standardization Documents". Drafting. This document replaces GB/T 20556-2006 "Portunus trituberculatus". Compared with GB/T 20556-2006, the main differences are structural adjustments and editorial changes. Aside from the modifications, the main technical changes are as follows:

- a) The "classification status" has been changed (see 4.2, 3.2 in the 2006 edition);
- b) The section on "Distribution and Ecological Habits" (see Chapter 4 of the 2006 edition) has been removed;
- c) The external morphology description has been changed (see 5.1, 2006 edition 5.1);
- d) The measurable characteristics have been modified (see 5.3, 2006 version 5.3), and corresponding detection methods have been added (see 8.1.3);
- e) The wording for "growth" has been changed (see 6.1, 2006 edition 6.1);
- f) The content regarding egg production has been removed, and the range for the number of eggs carried has been expanded (see 6.2.3, 6.2.4 in the 2006 edition);

g) Breeding water temperature has been removed (see

6.2.5 in the 2006 edition);

h) The section on "Biochemical and Genetic Characteristics" (see Chapter 7 of the 2006 edition) and the corresponding detection methods (see

9.2 of the 2006 edition) have been deleted;

1 Scope

GB/T 20556-2026 is the Chinese national standard covering the Chinese swimming crab as a farmed and traded product - the size and weight grades, the shell condition and fullness, the vigour of a live animal and the freshness criteria. It replaces GB/T 20556-2006 and has been in force since 1 September 2026. It was issued on 27 February 2026 and has been in force since 1 September 2026, replacing GB/T 20556-2006. The document is under the responsibility of the Ministry of Agriculture and Rural Affairs. This page is published from the official record of the 2026 edition; the clause text of a standard this recent is not yet in circulation, and the figures, limits and tables it contains are those of the document itself, delivered in full with the English translation.

The study describes the structural characteristics, growth and reproduction features, molecular genetic characteristics, and judgment rules, and outlines the corresponding detection methods. This document applies to the germplasm identification and testing of the swimming crab (*Portunus trituberculatus*).

4.1 Scientific name

4.2 Classification Status Phylum Arthropoda, Class Malacostraca, Order Decapoda, Family Portunidae, [unclear text - possibly related to crabs or molluscs] The genus *Portunus*.

5 Main morphological and structural characteristics

5.1 External Form The cephalothorax is fusiform with three wart-like projections; the dorsal surface is mostly tea-green, yellowish-brown, or purplish-red, while the ventral surface is grayish-white; the anterior lateral margin is oblique. Arched, longer than the posterior lateral margin; the cephalothorax has nine serrated teeth on each of the two anterior lateral margins, with the ninth serration being particularly long and large; the chelipeds are well-developed, with the meristem prismatic in shape, internally... The margins have blunt teeth; the dorsal surface of the chelipeds is purple with grayish-white spots; the first three pairs of walking legs are blue with purple dactyls; the fourth pair of walking legs has flattened and broad metacarpals and dactyls. Thin; flat abdomen, male crabs have a triangular or bell-shaped navel, while female crabs have a semi-circular or semi-elliptical navel. The external morphology of the three-spined swimming crab is shown in Figure 1.

5.2 Countable traits

5.2.1 There are three prominent verrucous elevations on the surface of the cephalothorax, one in the gastric region and two in the cardiac region.

5.2.2 The two anterior lateral margins of the cephalothorax each have 9 serrated teeth.

5.2.3 The frontal margin has 2 to 6 small teeth, usually 4.

5.2.4 There is a pair of stalked compound eyes that can rotate on both sides of the forehead.

5.2.5 Five pairs of chest and feet.

5.3 Measurable properties After stage III juvenile crabs, the total carapace width ranges from

12.0 mm to 257.0 mm, which is

1.45 times the carapace width. It is

2.52 times longer.

6 Growth and Reproduction Characteristics

6.1 Growth The process involves a series of molts, resulting in intermittent growth. After molting, the animal's weight and size increase significantly within a short period.

6.2 Reproduction

6.2.1 Sexual maturity Generally, male juvenile crabs in the first stage molt 8 to 10 times, while female crabs molt 9 to 10 times to reach sexual maturity.

6.2.2 Breeding season Spring-breeding crabs reach sexual maturity in the autumn of the same year, while autumn-breeding crabs reach sexual maturity the following spring. Female crabs mate after their reproductive molt, and can mate multiple times in a single mating cycle. spawning.

6.2.3 Egg holding capacity 3.5×10^4 capsules ~ 4.5×10^6 capsules.

7. Molecular genetic characteristics The reference sequence of the mitochondrial COI gene is as follows (658 bp). Intraspecific K2P (Kimura2-parameter) genetic distance should be less than 2%.

8.1 Main Morphological and Structural Characteristics

8.1.1 External Form Observe with the naked eye under natural light.

8.1.2 Countable traits Observe and count with the naked eye.

8.1.3 Measurable characteristics Measure the total nail width, nail length, and nail length using vernier calipers as per Appendix A, accurate to

0.1 mm. Weigh the body using an electronic balance, accurate to

0.1 g.

8.2 Growth and Reproduction Characteristics

8.2.1 Growth The width of the entire nail was measured with calipers to an accuracy of

0.1 mm, and the weight was weighed with an electronic balance to an accuracy of

0.1 g.

8.2.2 Breeding season It is determined by regularly observing the development of the gonads.

8.2.3 Egg holding capacity Dry the berried crabs by patting their bodies, then use tweezers to remove all the eggs from their abdomens, removing any bristles, hairs, or other impurities. Use an electronic balance to... Weigh (m1) (accurate to 0.1g). Randomly select 3 egg masses of approximately 1g each and weigh them accurately (m2). Place them in a graduated cylinder and seal with 5% formalin. After fixation, bring the volume to 100mL with seawater. Use a dropper to repeatedly blow the fertilized eggs until they are evenly dispersed, then transfer 1mL to another beaker and add an appropriate amount of seawater. Count the number of eggs using a transparent glass dropper, repeat 3 times and take the arithmetic mean (n). The number of brood eggs is calculated according to formula (1).

8.3 Molecular genetic characteristics Test according to the method in Appendix B.

9 Judgment Rules

9.1 When the test results meet the requirements of Chapter 5, the species can be identified.

9.2 When the following situations occur, additional testing requirements from other chapters should be added, and a comprehensive determination of the species should be made based on the test results.

- a) If Chapter 5 cannot be detected or accurately determined, add the content from Chapter 7;
- b) When a third party requests testing of all or part of Chapter 6;
- c) During full-item testing. GB/T 20556-2026. *Portunus trituberculatus* ICS

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