

Stephen Chara
250 Portreath Road,
Bellbrae, Victoria, 3228

Ph: 03 5266 1556

Mailto: stephen@charas.com.au

My ref: [SC Nomination Shrimp Jan 2010](#)

Date: 26th January 2010

Martin O'Brien
Secretary, Scientific Advisory Committee
Dept. Sustainability and Environment
2/8 Nicholson St., (PO Box 500) Victoria Pde.,
EAST MELBOURNE 3002

Nomination under the **Flora and Fauna Guarantee Act** of "Overfishing of native shrimp (*Paratya australiensis*) under Fisheries (Shrimp) Notice No. 11/2009".

Dear Martin,

I wish to nominate the following **potentially threatening process** for listing under the **Flora and Fauna Guarantee Act 1988**.

I believe that the nomination shows that the process is eligible for listing according to the criteria given in the nomination.

Yours sincerely,

Stephen Chara

encl.

File name:

Nomination by Stephen Chara – Shrimp.doc

FLORA AND FAUNA GUARANTEE ACT 1988

NOMINATION OF A POTENTIALLY THREATENING PROCESS FOR LISTING

Nominator's name		Signature	
Stephen Chara			
Nominator's address			
250 Portreath Road, Bellbrae, Victoria, 3228 Phone: 03 5266 1556 Email: stephen@charas.com.au			
Name of potentially threatening process			
"Overfishing of native shrimp (<i>Paratya australiensis</i>) under Fisheries (Shrimp) Notice No. 11/2009".			
Please state whether this is a nomination for listing or delisting			
This is a nomination for a listing.			
Description		<i>Provide a brief, general description of the potentially threatening process. A reference to a detailed description could be included.</i>	
<p>Fisheries (Shrimp) Notice No. 11/2009. The allowable daily take of swimmer shrimp was altered from 100 per person per day to 0.5 litres per person per day. 0.5 litres is equivalent to over 2000 shrimp. This is a huge increase and cannot be justified in terms of sustainability for the future. There was no scientific evidence provided with the notice to support such a huge increase in the daily take.</p> <p>Freshwater shrimp are a food source for many species of fauna. Reducing this food source from an area will impact on the survival of these species.</p>			
Habitats or areas affected		<i>Describe the habitats, geographic areas or environments where the potentially threatening process operates.</i>	
<p>The potentially threatening process would cover the whole state of Victoria. Freshwater Shrimp are found in freshwater rivers, slow flowing streams, creeks, ponds, close to the bank, or on rocks and aquatic plants. Shrimp favour vegetated areas.</p>			

Taxa or communities affected	<i>List individual taxa, functional groups of taxa or communities affected by this potentially threatening process.</i>
<p>Glass Shrimp (<i>Paratya australiensis</i>) Riffle Shrimp (<i>Australatya striolata</i>) Platypus, Birds and Fish.</p>	
Significance of the threat	<i>Indicate the significance of the threat, in terms of its scale and/or severity. Indicate how the potentially threatening process is operating now and/or is expected to operate in the future.</i>
<p>The significance of the threat is a dramatic reduction in shrimp populations especially during this extended dry period and climate change. Shrimp are a food source for other species which will also be affected. A practical test showed that there is approximately 2000 shrimp that will occupy 0.5 litres. That is an increase of 20 times in the allowable daily take by recreational fishermen. Some calculations to show a simple scenario since there is little scientific data available. If we consider 100 shrimp to occupy an area of 1 m² then 2000 would occupy 20 m². If 1% of recreational fishermen caught their shrimp entitlement 1 day per month they would strip approximately 1,730,400 m² of waterways and ponds of shrimp per year. These calculations are just to show the importance of good scientific data before huge increases in the daily take of Fishermen is permitted. As the number of fishermen increase so does the threat to shrimp into the future.</p>	
Eligibility criteria	<i>Indicate which of the primary criteria and sub-criteria stated in the Regulations the potentially threatening process satisfies, on what evidence the case is based and cite the sources of this evidence. The evidence may have been presented in full in the preceeding sections, but, in this section, a summary of the logic of the case should be provided. Unsupported statements which need to be verified delay the SAC's consideration of the nomination.</i>

5.1 *the potentially threatening process poses or has the potential to pose a significant threat to the survival of a range of flora and fauna.*

Allowing recreational fishermen to take a huge increase in the daily take of swimmer shrimp without providing supporting scientific data as to the sustainability of the increase in regards to the removal of a food source for native fauna has the potential to deplete their numbers and have broader ecosystem impacts especially during a drought period.

5.1.1 *the potentially threatening process poses or has the potential to pose a significant threat to the survival of two or more taxa;*

Since there was no scientific data attached to the increase of the daily take of swimmer shrimp by Recreational Fishermen. A simple mathematical calculation as above can show the potential impact the increased daily take can have on this resource.

5.1.2 *the potentially threatening process poses or has the potential to pose a significant threat to the survival of a community of flora and fauna.*

Shrimp are a food source for many other species of fauna. Unmonitored fishing of large numbers will impact on the survival of these species. Shrimp also exist to play an important part in the ecology of a water system where other species co-exist.

5.2 *the potentially threatening process poses or has the potential to pose a significant threat to the evolutionary development of a range of flora and fauna.*

Where there is an action there is a reaction. Remove or reduce a food source will result in the reduction in numbers or the average size of a species that rely on that food source. If one food source is removed or reduced then an alternative is sought. This can cause a change in habit or method of searching for food. For example switching focus from a free floating food source to a surface or burrowing food source. This could cause an increase in the damage to vegetation, soil erosion and water quality.

5.2.1 *the potentially threatening process poses or has the potential to pose a significant threat to the evolutionary development of two or more taxa;*

5.2.2 *the potentially threatening process poses or has the potential to pose a significant threat to the evolutionary development of a community of flora and fauna.*

There is a significant threat to the evolutionary development to a community of fauna and flora. Reducing a specific food source will result in fauna searching for an alternative which can result in a change to a species range. This can then impact on other species. Less shrimp results in less fish that eat shrimp which results in less birds that eat fish etc.

References	<i>Provide full details of references which have been cited as sources of evidence in the nomination.</i>
Aust. J. Mar. Freshwater Res., 1977, 28, 403-15 Some Aspects of the Ecology of <i>Paratya australiensis</i> (Crustacea : Decapoda : Atyidae)	



Approximately 400+ glass shrimp.



Measuring jug was filled to the 500 ml mark and the shrimp added. The increase was less than 100 ml in the wet test.



The dry test after the shrimp stopped jumping around was just around the 100 ml mark.

Key Points and Comments

1/ The calculations included are only provided to highlight the need for accurate Scientific Data.

2/ It should be compulsory to provide scientific data with all documents associated with increases in fishing limits.

3/ In relation to the following comment from document following,

“The average recreational angler does not pursue shrimp as bait, so their sustainability is probably assured and I have no doubt Fisheries Victoria would have research data to support the proposed change from 100 to 0.5 litre.”

If recreational fishermen do not target shrimp then why make them available let alone increasing the daily take by 20 times?

4/ If you use volumes to determine catch limits then a minimum size must also be considered.

5/ It is important to know the use of a resource. For example, if shrimp are harvested and used for burly (crushed bait) then is this an appropriate use of a resource?

Fisheries Act 1995

FISHERIES NOTICE NO. 11/2009

<http://www.dpi.vic.gov.au/dpi/nrenfaq.nsf/LinkView/ADC6B17F28001A5BCA2576A2000F5F35513038909A76F5F5CA2576A300030873>

I, Anthony Hurst, A/Executive Director Fisheries Victoria, as delegate of the Minister for Agriculture, make the following Fisheries Notice:

Dated: 22/ 10/2009

Anthony Hurst

A/Executive Director Fisheries Victoria

FISHERIES (SHRIMP) NOTICE NO. 11/2009

1. Title

This Notice may be cited as the Fisheries (Shrimp) Notice No. 11/2009.

2. Objectives

The objectives of this Notice are to set separate recreational catch limits for swimming shrimp (all species) and burrowing shrimp (all species including Bass yabby).

3. Authorising provision

This Notice is made under sections 68A and 152 of the **Fisheries Act 1995** (“the Act”).

4. Commencement

This Notice comes into operation on the 1 November 2009.

5. Catch Limits

For the purposes of Section 68A of the Act;

(1) The catch limit with respect to the-

- (a) taking of swimming shrimp (all species) from Victorian waters; or
- (b) possession of swimming shrimp (all species) in, on or next to Victorian waters - is 0.5 litres.

(2) The catch limit with respect to the-

- (a) taking of burrowing shrimp (all species including Bass yabby) from Victorian waters; or
- (b) possession of burrowing shrimp (all species including Bass yabby) in, on or next to Victorian waters – is 100.

Note:

There are offences in sections 68A and 68B of the Act relating to taking or possessing fish in excess of the catch limit in this fisheries notice for that species of fish. Various penalties apply.

6. Exemption for commercial fishing

- (1) This fisheries notice does not apply to a person who takes or possesses fish of a species specified in the fisheries notice in a quantity in excess of the catch limit for that species of fish if –
- (a) the person –
 - (i) is the holder of, or is acting on behalf of the holder of, an access licence authorising the taking and possession of that species of fish; and
 - (ii) takes or possesses the fish in accordance with the licence, the Act and these Regulations; or
 - (b) the person—
 - (i) is the holder of, or is acting on behalf of the holder of, an aquaculture licence authorising the hatching, rearing, breeding, growing or displaying of fish of that species; and
 - (ii) takes or possesses the fish in accordance with the licence, the Act and these Regulations; or
 - (c) the person—
 - is the holder of, or is acting on behalf of the holder of, a general permit authorising the taking or possession of that species of fish in that quantity; and
 - (ii) takes or possesses the fish in accordance with the permit, the Act and these Regulations.
- (2) This fisheries notice does not apply to a person who possesses fish of a species specified in the fisheries notice in a quantity in excess of the catch limit for that species of fish, and which the person received from a person referred to in exemption (1).

7. Revocation

Unless sooner revoked, this Fisheries Notice will be automatically revoked 12 months after the day on which it comes into operation.

Fishcare
Mornington Peninsula
and Westernport Inc
PO Box 7190
Karingal Centre 3199
28 September 2009

Monique Leane
Marine Fisheries Project Officer,
DPI
GPO Box 4440
Melbourne 3001.

RE: RECREATIONAL CATCH LIMIT FOR SWIMMING SHRIMP

Re the above, I would like to offer the following comments.

Whilst I appreciate the difficulties in counting 100 shrimp, I have some concerns with their sustainability should the review decide to implement the proposed new daily catch and possession limit to 0.5 litres, **which is acknowledged as being more than 100 (size dependant). It is unusual to see a catch limit (possibly) being increased in today's world and awareness of our environment and its sustainability.** The average recreational angler does not pursue shrimp as bait, so their sustainability is probably assured and I have no doubt **Fisheries Victoria would have research data to support the proposed change from 100 to 0.5 litre.** It would simplify the regulation in that a volume measure is used for Crustaceans (crabs) and Other Invertebrates (sandworm and other marine worms) and using the same unit of measure should avoid confusion within the recreational fishing sector.

One thing I would like to see clarified is the difference between a shrimp and a prawn. I know that shrimp are found in freshwater, but a shrimp in saltwater that is not a prawn has confused me. Is it a shrimp or a prawn that is being taken for bait in our marine waters?

The next edition of the recreational fishing guide would need to be amended as it groups all shrimp(burrowing and swimming) together with a bag/possession limit of 100. Separate entries would be required for swimming shrimp and burrowing shrimp as one would have a volume limit and the other a numeric.

The above is for your consideration in deciding any proposed change to the bag/possession limit for swimming shrimp.

Yours sincerely

Jeff Green

Victorian National Parks Association Inc.

Level 3, 60 Leicester St Carlton 3053,
Telephone: (03) 9347 5188 Facsimile: (03) 9347 5199
Email: vnpa@vnpa.org.au Web site: www.vnpa.org.au

A/ Executive Director Fisheries Victoria
1 Spring St. GPO Box 4440
Melbourne VIC 3001

22nd September 2009

Dear Mr. Hurst,

Re: Recreational Catch Limit for Swimming Shrimp

The Victorian National Parks Association (VNP A) does not support an increase in the recreational daily catch limit for recreational swimming shrimp in Victoria. We do not object to the proposal to implement a recreational daily catch limit based on a volume measurement so long as this catch limit is set at a volume that ensures that the recreational daily catch limit does not increase beyond current limits. Accordingly, if the catch limit is revised the **VNPA would like to see the volumetric catch limit set at a level which ensures no more than approximately 100 swimming shrimp can be taken each day.**

Yours Sincerely,

Paige Shaw
Marine and Coastal Project Officer

WHY INCREASE THE DAILY TAKE OF SHRIMP BY RECREATIONAL FISHERMEN BY 1000%+?

Some basic calculations before practical test.

Since all shrimp are referred to, we will consider the species *Paratya australiensis*.

These grow to about 30mm in length are about 5mm wide and about 3mm thick.

$30 \times 5 \times 3 = 450$ cubic mm. Since they are tapered in shape this would be twice the volume of the shrimp but we will use this extra space and call it air space when packed.

1 litre = 1000 cc = $1000 \times 10 \times 10 \times 10 = 1,000,000$ cubic mm.

0.5 litres = 500,000 cubic mm.

0.5 litres = 500,000 divided by 450 cubic mm = over 1000 of the largest shrimp, an increase of 10 times. If you considered an average size then this figure could be over 3000 per person per day.

Some basic calculations based on practical test.

A practical test showed that there was over 400 glass shrimp occupying a volume of 100 ml.

Under the Fisheries (Shrimp) Notice No. 11/2009 Recreational Fishermen are entitled to a daily take of 0.5 litres (500 ml) per person per day.

This is $400 \times 5 = 2000$ per person per day. An increase of 20 times the old limit of 100 per person per day.

If we consider a reasonable density of 100 shrimp occupying an area of 1 m^2 .

Then 2000 shrimp would occupy 20 m^2 .

If 1% of recreational fishermen caught their shrimp entitlement 1 day per month they would strip approximately $1,730,400 \text{ m}^2$ of waterways and ponds of shrimp per year.

721,000 Recreational Fishermen in Victoria.

1% = 7210.

$7210 \text{ RF} \times 12 \text{ Days} \times 20 \text{ m}^2 = 1,730,400 \text{ m}^2$ of area.

These calculations are only presented to highlight the need for accurate Scientific Data which should be provided as compulsory when any fishing limit is increased.

Some Aspects of the Ecology of *Paratya australiensis* (Crustacea : Decapoda : Atyidae)

W. D. Williams

Department of Zoology, University of Adelaide, G.P.O. Box 498, Adelaide, S.A. 5001.

Abstract

Three Australian species of *Paratya* have been described. However, only one, *P. australiensis*, can be accepted. It occurs in Australia in a broad south-eastern arc, and in a wide variety of permanent inland waters (coastal streams, rivers, lakes, farm dams and ponds). In these it favours vegetated areas. Young hatch as free-floating larvae and hatching occurs mainly in early summer in southern Victoria. Females breed in their second summer. In south-eastern Australia, at least, this breeding season appears adapted to the hydrological regime of running waters.

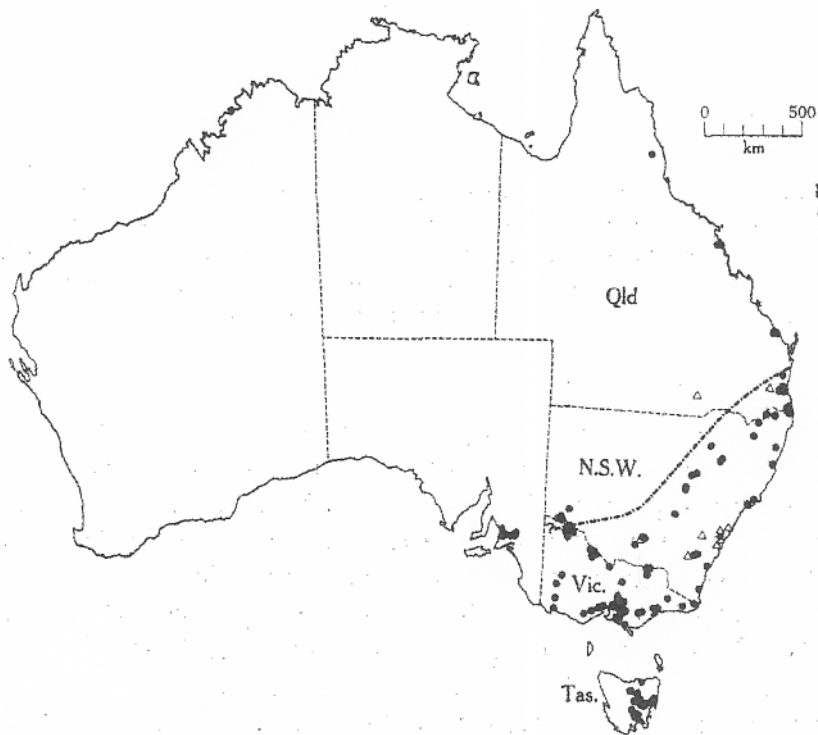


Fig. 1. Distribution of *Paratya* in Australia. ● Original records.
△ Records of *P. australiensis sensu* Riek, from Riek (1953). - - - -
Inland boundary of distribution for *Paratya* proposed by Bishop (1967).