

*Taikon – Requirements on the Importation of Prepared Foods and Live Animals from Astor  
For the 18<sup>th</sup> Edition of the John H. Jackson Moot Court Competition*

Geraldo Vidigal  
Amsterdam Law School, University of Amsterdam (Netherlands)

## 1 BACKGROUND

1.1. Astor, Taikon and Cosmia are three small archipelagic World Trade Organization (WTO) Members with mutually intelligible official languages, all located in the relatively isolated East Stormy Ocean. All three are founding Members of the WTO. Taikon has a population of 8 million, Astor 6.5 million and Cosmia, which sits mid-way between the two larger Stormian nations, 1.3 million. The Stormian economies are historically based on fishing and subsistence agriculture, with tourism acquiring increasing significance over the past two decades, especially in Taikon. In 2007, after seven years of high economic growth, Taikon notified the WTO Secretariat that it would no longer seek to benefit from advantages accorded to developing countries under the WTO agreements.

1.2. In early 2009, Astor, Taikon and Cosmia signed the Agreement Establishing the East Stormy Ocean Development and Economic Community (ESODEC Agreement) [Annex I(A)], which entered into force in December the same year. The three parties committed to 'ensure the free flow of goods among their producers, traders and consumers', through the establishment of a free-trade area within three years and the 'progressive tearing down of all tariff and non-tariff barriers to trade among them'. The ESODEC Agreement sets up a political decision-making body (the Joint Committee) that meets periodically, and establishes a Court and a Secretariat, both based in Cosmopolis, Cosmia.

1.3. In October 2012, the ESODEC Free Trade Area was notified to the WTO under Article XXIV:7(a) of the General Agreement on Tariffs and Trade 1994 ("GATT 1994"). Tariffs and quantitative restrictions on all products were eliminated among the three Members.

### 1.2 The ESODEC Regulatory Community

1.4. The same month the three Members notified the Free Trade Area to the WTO, October 2012, they also signed the ESODEC Regulatory Community Agreement (RCA) [Annex I(B)], subsequently ratified by all ESODEC Member States and promulgated by the ESODEC Joint Committee at the Cosmopolis Summit of 2014. The RCA provides, in relevant part:

#### Article 2 – Regulatory Community

All products subject to ESODEC regulations and lawfully marketed in one Member State shall be admitted for marketing in every other Member State, without undergoing additional technical, sanitary, phytosanitary, or administrative controls to assess conformity with either the relevant ESODEC Regulation or the importing Member's own laws and regulations.

1.5. Besides establishing the regulatory community, the RCA sets up an independent agency, the Regulations Authority, to oversee implementation of ESODEC regulations by national authorities, and entrusts the ESODEC Court with adjudicating disputes over the implementation of the ESODEC Agreement. It also opens the possibility for ESODEC to enter into 'equivalence agreements' with non-ESODEC countries for mutual recognition of regulations and conformity assessment procedures, although no such agreement has been signed or negotiated with any other country.

1.6. The provision establishing the regulatory community came into force one year after the promulgation of the RCA, in a summit held on 10 March 2015 in Kontai, Taikon's capital. Taikon

incorporated the provisions of the RCA into its domestic law through the passage of Law 14/2012, which entered into force on the same day as the RCA. At the same summit, the Joint Committee adopted Regulation 7/2015 establishing an Enhanced Control Procedure (ECP) 'to detect the presence of products, elements and substances prohibited by ESODEC Regulations in products entering the territory of the Community' (Enhanced Control Procedure (ECP) Regulation) [Annex I(C)]. Products imported from other ESODEC Members are exempted from the application of the ECP by virtue of the Regulatory Community Agreement.

1.7. Since the RCA came into force, a particularly successful intra-ESODEC trade in prepared foods has developed (see Annex II). Taikon, being located in the warmer and less rainy part of the East Stormy Ocean, where marine life is colourful and abundant, has become highly popular with tourists. Adventure tourists from all over the world explore Taikon's mostly pristine islands and coral reefs, and two of Taikon's larger islands have developed a reputation as high-end honeymoon destinations. Astor and Cosmia, colder and less endowed with natural beauty, have specialized in breeding a species of crustacean endemic to the East Stormy Ocean area, whose meat is highly appreciated by locals, and which has become a symbol of the region, the Stormian crab (*Heikeopsis tempestensis*).

1.8. Using specific techniques and large seaside farms, Astorian and Cosmian producers have been able to breed the fragile Stormian crab, whose reproductive cycle requires that the species have access to both marine water (where the species usually dwells) and freshwater environments (where females must stay, holding the fertilized eggs, until the eggs develop fully and hatch). While its meat deteriorates quickly if uncooked, once cooked and mixed with seaweed and local spices and herbs, the meat may be frozen and preserved for as long as three days, retaining its full taste when unfrozen. A number of Astorian and Cosmian companies have specialized in preparing and shipping various types of prepared crab meals, sold as 'Traditional Stormian Cuisine' in Taikon's busy hotels and restaurants. A smaller trade has developed in Stormian crabs, bred in Astor and Cosmia, which are shipped live to Taikon to be presented to clients of high-end restaurants, who can witness the preparation of their meal according to traditional Stormian techniques. In its Conclusions, the ESODEC Summit of October 2017, held in Taikoa, Taikon's second-largest city, '[n]oted with satisfaction that ESODEC integration efforts ha[d] resulted in the exponential growth of intra-ESODEC trade, with food products responding for over 30% of this trade over the [previous] twelve months'. In light of this increase, the ESODEC parties also agreed to regulate the trade in Stormian crab 'to prevent unsustainable exploitation of Stormian crabs'. In November 2017, the three parties jointly submitted a request to the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES)<sup>1</sup> to add the Stormian crab to Annex III of CITES.

### 1.3 The introduction of the marbled crayfish to the East Stormy Ocean

1.9. The high demand for Stormian cuisine by tourists in Taikon put a strain on the population of Stormian crabs, a fragile species whose reproduction outside the conditions of the East Stormy Ocean requires significant and expensive infrastructure. Although producers in some non-ESODEC countries started breeding Stormian crabs for export to Taikon, the cost of the infrastructure required, combined with the challenge of transporting the meals in appropriate temperature to the East Stormy Ocean in three days and the 15% tariff imposed by Taikon on animals and prepared food products coming from outside of ESODEC, makes non-ESODEC food products generally uncompetitive. To meet demand, some producers, within and outside ESODEC, started marketing as 'Traditional Stormian Cuisine' meals containing the meat of another species, the rapidly reproducing and sturdier marbled crayfish (*Procambarus virginialis*), which lives in freshwater and whose flavour, once its meat is mixed with typical Stormian herbs, markedly resembles that of the Stormian crab.

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<sup>1</sup> Convention on International Trade in Endangered Species of Wild Flora and Fauna, done at Washington, DC, United States, 3 March 1973, entered into force 1 July 1975, 993 UNTS 243, 12 ILM (1973) 1085. All three ESODEC Members are parties to CITES since it entered into force. The regime applied to the international trade in Stormian crabs is the one described in Article V of CITES.

1.10. While no freshwater crayfish existed in the East Stormy Ocean previously, the marbled crayfish proved highly adaptable to the conditions there. Some Stormian crab farms in Astor and Cosmia started to breed marbled crayfish, which, while commanding a lower price, are far less expensive to breed than the Stormian crab. Due to the difficulties of telling apart the meats of the two animals, the Taikonese Restaurants Association and a new association of breeders, the 'Stormian Crab Alliance', co-sponsored an initiative aimed at instructing consumers and restaurant industry workers with respect to the differences between the two types of meat.

1.11. While many ESODEC crab farms joined the Stormian Crab Alliance and committed not to breed marbled crayfish, it was not uncommon for these farmers to encounter a few marbled crayfish when harvesting Stormian crabs. In November 2017, three biologists, each from one of the three ESODEC Member States' national universities, published a study (Annex III) pointing to the dangers to the Stormian crab arising from the spread of marbled crayfish, since the marbled crayfish competes for food with female Stormian crabs during the most delicate part of the Stormian crab's reproductive cycle.<sup>2</sup> Their open letter to the Stormian governments, calling for the prohibition of the commercial breeding of marbled crayfish, went largely unnoticed.

## 2 THE ESODEC BAN ON MARBLED CRAYFISH

2.1. In early 2018, international media became interested in the marbled crayfish, with many outlets noting that this was in fact a relatively new species.<sup>3</sup> The marbled crayfish is unique in that it is the product of a mutation that makes female specimens reproduce through 'self-cloning', which explains its rapid rate of reproduction. Due to this mutation, the marbled crayfish has in fact reproduced uncontrollably in other WTO Members, a fact of growing concern to scientists.<sup>4</sup> Alarmed at the threat posed by the marbled crayfish to native crayfish species, a number of WTO Members have, at the national and subnational levels, prohibited the importation and possession of live marbled crayfish.<sup>5</sup>

2.2. Upon becoming familiar with these facts, Baars Terix, a popular Astorian internet celebrity, initiated a campaign against the marbled crayfish on social media. The campaign, branded 'Stop Poisoning Our Food', claimed that the marbled crayfish was being 'pushed on Astorian citizens by reckless ESODEC regulators who put profit before people'. In one particularly caustic video, Mr. Terix demonstrated the ability of the marbled crayfish to reproduce by self-cloning in a domestic water tank and showed footage of a large marbled crayfish farm in Astor, all while announcing the 'dangerous devastating consequences' and 'unknown health effects' of 'this unnatural animal, prohibited in basically every country with a decent government, now spreading in our waters, carrying unknown diseases, and contaminating our food in ways that would be unthinkable there'. This video was shared over six million times and became the subject of media reports and intense debates in all three ESODEC Member States.

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<sup>2</sup> Partuto, Kowai and Mishou, 'The Spread of Parthenogenetic Crayfish (*Procambarus virginalis*) in the East Stormy Ocean Region' (2017) 9 *Global Journal of Marine Ecology* 150-178 [fictional].

<sup>3</sup> Carl Zimmer, 'This Mutant Crayfish Clones Itself, and It's Taking Over Europe', *New York Times* (5 February 2018); Ewen Callaway, 'Geneticists unravel secrets of super-invasive crayfish', 554 *Nature* (6 February 2018) 157-158; Sarah Zhang, 'A Pet Crayfish Can Clone Itself, and It's Spreading Around the World', *The Atlantic* (5 February 2018).

<sup>4</sup> Tadashi Kawai *et al*, 'Parthenogenetic Alien Crayfish (Decapoda: Cambaridae) Spreading in Madagascar' (2009) 29 *Journal of Crustacean Biology* 562-567; Zen Faulkes, 'The spread of the parthenogenetic marbled crayfish, *Marmorkrebs* (*Procambarus* sp.), in the North American pet trade' (2010) 5 *Aquatic Invasions* 447-450; Jiří Patoka, 'Risk assessment of the crayfish pet trade based on data from the Czech Republic' (2014) 16 *Biological Invasions* 2489-2494; Boris Lipták *et al*, 'Expansion of the marbled crayfish in Slovakia: beginning of an invasion in the Danube catchment?' (2016) 75 *Journal of Limnology* 305-312; Julian Gutekunst *et al*, 'Clonal genome evolution and rapid invasive spread of the marbled crayfish' (2018) 2 *Nature Ecology & Evolution* 567-573.

<sup>5</sup> European Union, Commission Implementing Regulation (EU) 2016/1141 of 13 July 2016 adopting a list of invasive alien species of Union concern pursuant to Regulation (EU) No 1143/2014 of the European Parliament and of the Council; United States, Section 1160-01-18-03 of Tennessee Administrative Code.

2.3. In early March 2018, Mr. Terix opened for signature an online petition to ban the marbled crayfish in Astor. After it gathered one million signatures, Mr. Terix delivered the petition to the President of the Astorian National People's Assembly in an online event followed by hundreds of thousands of Astorians. A week later, at the Cosmopolis Summit of 2018, the ESODEC Joint Committee adopted ESODEC Regulation 13/2018 of 12 March 2018, a regulation banning the marbled crayfish in all ESODEC members (Crayfish Ban) [Annex I(D)] due to 'the importance of preserving the natural habitat of indigenous species and ensuring that all food products sold within ESODEC are safe for human consumption'.

2.4. The Crayfish Ban was notified to the WTO through the SPS Notification Submission System on 2 April 2018. It prohibits the possession, importation, breeding, and marketing of marbled crayfish and products containing marbled crayfish within ESODEC Member States, and establishes enforcement procedures in ESODEC Member States, to be implemented by national authorities and supervised by the ESODEC Regulations Authority.

### **3 ENFORCEMENT OF THE BAN AND APPLICATION OF THE ECP**

3.1. To provide for enforcement, the Crayfish Ban requires national authorities to apply the ESODEC Enhanced Control Procedure to imports of 'products potentially containing marbled crayfish'. Therefore, on 10 July 2018, the ESODEC Regulations Authority issued Directive 44/2018, modifying the list of products to be subjected to the ECP to include '(f) All products consisting of marine and aquatic animals' and '(g) All food products containing the meat of marine and aquatic animals'.

3.2. As determined by the ECP Regulation, the ECP involves the carrying out of tests on one out of every twenty imported products, or 5% of the volume or mass of products, that are classified by the Joint Committee as 'potentially containing a prohibited product, element or substance whose entrance in the territory of the Community might produce a risk of irreversible damage'. The ECP also requires that imports be accompanied by an exporter declaration attesting that no marbled crayfish are present in the production facilities used to produce the imported products.

3.3. The time each test takes to perform, the cost, and method of assessment are defined in each case by the ESODEC Regulations Authority in consultation with the national authorities of ESODEC Member States. The ECP must be applied 'in accordance with the principles of appropriateness and reasonableness and ... respect the international obligations of ESODEC and those of its Members States'. If the ECP results in the detection of the prohibited product, substance, or element, the exporter is considered to have submitted an incorrect declaration and receives a warning. An exporter that submits an incorrect declaration more than once within a period of five years is prohibited from exporting to ESODEC for a period of five years unless it enters into a 'conduct adjustment arrangement' with the ESODEC Regulations Authority, which may involve agreeing to more frequent controls or permitting on-site visits by the ESODEC Regulations Authority to the production facilities. Taikonese authorities applying the ECP have found crayfish meat in prepared food products on six instances, all of which in 2018. Out of these, two involved exporters that had already been found to have submitted an incorrect declaration. The two exporters were sanctioned in accordance with the ECP regulation and no conduct adjustment arrangement was signed. Taikonese authorities have never found crayfish in shipments of Stormian crabs. Astorian and Cosmian authorities have never found crayfish or crayfish meat in imports (imports of both prepared food and Stormian crab into these two ESODEC Members are negligible).

3.4. Although the ECP tests themselves are relatively simple to perform and cost-effective, they are applied to perishable food products which can result in financial costs beyond those of the tests themselves. Containers of live Stormian crab can be inspected visually. An inspection rarely takes more than fifteen minutes and has only a marginal impact on the cost of the final product. In the case of prepared foods containing Stormian crab meat, however, inspection time and costs can be significantly higher. A study by the Taikonese National University found that due to refrigeration costs even the twelve-hour delay that the application of the ECP to prepared food products usually entails increases the final price of products by 50%. When testing facilities are busy and cannot

conduct the tests on the day of importation, costs can rise exponentially, because some or the whole of the cargo may deteriorate and become unfit for consumption. Due to the increased costs, importation of prepared foods into Taikon from outside the Community virtually stopped (see Annex II).

3.5. Following the enactment of the Crayfish Ban, its enforcement in Taikon, Astor and Cosmia was swift and largely effective. National authorities, who had been monitoring seaside farms and processing establishments of Stormian crabs for the purposes of Article V of CITES, were entrusted with controlling compliance with the ban. Implementation reports by national authorities to the ESODEC Regulations Authority, issued pursuant to Article 3 of the Crayfish Ban regulation, provided as follows:

**Table 1 – Establishments Inspected (Establishments where marbled crayfish were found)**

	Jul 2018	Aug 2018	Sep 2018	Oct 2018	Nov 2018	Dec 2018	Jan 2019	Feb 2019	Mar 2019	Apr 2019
Astor	4(3)	8(3)	13(4)*	27(3)	43(4)	43(0)*	42(0)	35(0)	29(0)*	-
Taikon	3(1)	3(0)*	3(0)	3(0)*	3(0)	3(0)	3(0)	3(0)*	5(0)	8(0)
Cosmia	2(1)*	5(1)	12(4)	17(3)	28(3)*	28(0)	28(0)*	30(0)	32(0)	38(0) *

\* Inspections accompanied by a representative of the ESODEC Regulations Authority.

3.6. Following the success of his petition, Mr. Terix was invited to a number of television, radio, and internet shows within and outside of ESODEC countries. In a televised interview viewed over three million times on social media, he declared that the ban on marbled crayfish 'should be just the beginning of a new era for Astor'. In a widely reproduced passage, he added:

Astorian leaders must stop hiding behind ESODEC and using ESODEC to further their undemocratic purposes. Astorian citizens, and not profit-driven ESODEC regulators, should determine what our crab farms can and cannot do. Astorian citizens, and not the transnational hotel industry in Taikon, must decide what standards the safety of our food requires. Astorian judges who we can look in the face, and not some foreign court in Cosmia where Astor can be outvoted, must decide which laws apply and how we govern our country. Astorians have had enough of ESODEC.

3.7. The following week, Mr. Terix announced he was running for president of Astor in the November 2018 elections. While his bid was initially mocked and perceived as a curiosity, he ended up winning by a landslide against the incumbent, amassing 68% of the vote on the first round. His party obtained 52% of the seats in the Astorian National People's Assembly.

#### **4 ASTOR'S WITHDRAWAL FROM ESODEC**

4.1. Upon taking office in December 2018, in his inauguration speech, Mr. Terix immediately announced Astor's withdrawal from ESODEC, stating that his election would 'inaugurate a new era of sovereignty for Astor and finally set Astor free from foreign interference'. In a press conference the same week, the Secretary-General of ESODEC, Ms. Manuela Not-Nem (a Taikonese national), gave a press conference in which she urged Mr. Terix to reconsider his decision. She stated: 'ESODEC is a Community of three nations, in which Astor has a strong voice and from which Astor benefits greatly. ESODEC has delivered with respect to the marbled crayfish and the new Astorian government should consider the option of acting within the framework of the Community ... Stormian nations can stand proud of their sovereignty while cooperating within ESODEC, coordinating their economic policies and boosting their voice through the three nations' joint economic weight and the Community's solid institutions'.

4.2. Confronted with these remarks, Mr. Terix replied that 'Astor no longer bows to international bureaucrats who keep meddling in our affairs. I will submit the proposal to withdraw from ESODEC to the National People's Assembly tomorrow as planned, and from now on Astor will deal with the Taikonese and Cosmian governments, who are the legitimate representatives of their peoples'. Following a noisy parliamentary session which gathered 102 votes in the 200-Member Astorian National People's Assembly in favour of the proposal, the notification of withdrawal was submitted to the ESODEC Joint Committee on 14 January 2019. The letter that accompanied the notification specified:

As a sovereign nation, Astor aims to continue to cooperate with Cosmia and Taikon in the political, economic, cultural, social and environmental fields for the achievement of our common goals. Astor trusts that its sovereign decision will not lead to discrimination against Astor or its producers and that our achievements in trade liberalization will continue to permit unhindered trade among our nations. Astor will not impose new barriers on imports from Cosmia and Taikon. We request our partners and friends in Cosmia and Taikon to ensure that Astorian exporters continue to benefit from the recognition of the quality and safety of our products as equivalent to their own.

4.3. As provided for in Article 51 of the ESODEC Agreement, Astor's notification of withdrawal took effect three months later, on 13 April 2019. On the same date, the ESODEC Regulations Authority issued a Note (Note 7/2019) [Annex I(E)] acknowledging Astor's new status as a non-ESODEC country and instructing Cosmian and Taikonese customs authorities to apply ESODEC regulations accordingly, including by applying the ECP to covered products imported from Astor into the Community, from midnight on that date.

4.4. Many Astorian exporters were taken by surprise by the application of the ECP to Astorian products. Although no crayfish was ever found in Astorian products, coupled with Taikon's 15% tariff on the importation of prepared foods, the ECP made Astorian prepared food products uncompetitive other than in high-end hotels, which mostly bought live Stormian crabs. On 2 May 2019, Astor's Ministry of Economy issued a press release reporting that exports of Astorian prepared foods to Taikon, which in April 2018 had represented 25% of all Astorian exports in value, had fallen by 30% in April 2019, and by 70% when only the period after Astor's withdrawal from ESODEC was considered (see Annex II). While there had been a 20% increase in exports of live Stormian crab, this made for little consolation, seeing as live crab only constituted 5% of Astor's exports in value (up from 3% in April 2018). Many larger Astorian prepared food producers had moved farms to Cosmia or were processing their Stormian crabs in Taikon. The Astorville Gazette, Astor's largest newspaper, reported that a number of seaside farms and a majority of processing facilities in Astor had operated at a loss in April 2019.

## **5 POST WITHDRAWAL NEGOTIATIONS OVER APPLICATION OF ECP TO ASTORIAN FOOD PRODUCTS**

5.1. On 15 May 2019, President Terix travelled to Taikon and Cosmia with representatives of the Astorian Food Safety and Regulatory Agency (AFSRA). He stated that he would not meet with ESODEC representatives, declaring his intention to 'enter into an arrangement between sovereign nations with the Taikonese and Cosmian peoples. Our Stormian crab farmers and food producers supply high-quality, safe and healthy food and should be able to sell food products to these countries while we keep our freedom and sovereignty to make and enforce our own rules'. During a press conference, ESODEC Secretary-General Not-Nem stated: 'both I and ESODEC nations have explained to President Terix that ESODEC, rather than individual ESODEC Member States, has the competence to negotiate equivalence agreements. The doors to my office will remain open in case President Terix wishes to begin negotiations over such an agreement'. Asked about this statement, President Terix replied that 'Astor no longer submits to the decisions of ESODEC officials. Taikon and Cosmia have international obligations that they must abide by'.

5.2. Following three days of meetings and attempts at negotiating an exemption from the ECP for Stormian crab products from Astor, Mr. Terix gave a press conference in which he declared his disappointment with 'the unreasonable and unjustifiable rigidity of our decades-long trade partners in Taikon and Cosmia'. The next day, speaking before the Astorian National People's Assembly, he read the following statement:

Astorian prepared foods are made exclusively with Stormian crab. They enjoy a worldwide reputation for their taste, purity and production using exclusively traditional Stormian ingredients and modes of preparation. Over the past five years, AFSRA has worked in close partnership with Taikonese and Cosmian authorities under the aegis of ESODEC to enforce best practices and ensure the safety and purity of its products. Astorian prepared foods were certified 100% free of marbled crayfish by the ESODEC Regulations Authority as recently as April this year.

Astor does not challenge Taikon's rights to protect the health of its citizens against potentially harmful food products and to prevent as much as possible the unnatural marbled crayfish from entering into its territory in any form. However, erecting trade barriers against products whose safety is assured and recognized is not acceptable. There is no scientific research, ascertainable fact or recent development that would put into question the safety of Astorian products, the truthfulness of Astorian producers' declarations, or the capacity of AFSRA to continue to monitor the production of Stormian food products following the traditional Stormian methods and using exclusively traditional Stormian ingredients. We continue to apply the same rigorous testing to our own crab farms as we did when we were an ESODEC Member, and we continue to apply to non-Stormian countries the same rigid procedure determined by the ECP Regulation, to ensure that no marbled crayfish comes into our country. Indeed, since Astor withdrew from ESODEC, not a single law, regulation or administrative procedure has changed, either in ESODEC Member States or in Astor, that would justify concerns regarding the safety of our products.

This is precisely the kind of arbitrary action by ESODEC that I have condemned in the past and reinforces my conviction that we must not negotiate with ESODEC. The application of the ECP to Astorian products raises baseless suspicions about Astorian food producers and represents unjustified discrimination against Astorian products, violating the agreements of the WTO, to which Astor, Taikon and Cosmia remain parties. Astor will seek its rights before the WTO Dispute Settlement Body (DSB).

## **6 CLAIMS OF WTO INCONSISTENCY IN ASTOR'S PANEL REQUEST AND TAIKON'S STATEMENT TO THE DSB**

6.1. On 31 May 2019, the Astorian government requested consultations with the Taikonese government under Articles 4 and 6 of the DSU, Article XXIII:1 of the GATT 1994, and Article 11.1 of the SPS Agreement. After 60 days of unsuccessful consultations, Astor submitted a request for the establishment of a panel to the DSB, containing the following claims:

1. The ESODEC crayfish measures, comprised of the Crayfish Ban and Directive 44/2018, as incorporated into Taikon's national regulatory system and applied by Taikon national authorities, are SPS measures. As applied to live animals and prepared food products to implement the Crayfish Ban, the ECP is also an SPS measure.
2. Taikonese Law 14/2012, incorporating the ESODEC Regulatory Community Agreement, sets up a system for recognition of equivalence for ESODEC Member States that is more favourable than the system that is applied to other WTO Members, and thereby discriminates between Astor and ESODEC Members contrary to Article 2.3 of the SPS Agreement. Moreover, by applying a different ALOP to the same risk depending on whether a product

comes from Cosmia or from Astor, Taikon is acting inconsistently with Article 5.5 of the SPS Agreement.

3. By withdrawing the equivalence recognition previously enjoyed by Astor and applying the ECP to products from Astor, Taikon's application of Note 7/2019 of the ESODEC Regulations Authority is inconsistent with Taikon's obligations under Article 4.1 of the SPS Agreement.
4. Even if the SPS Agreement were not applicable to the measures at issue as applied to food products, Taikon's application of the ECP Regulation to Astor is inconsistent with Article I:1 of the GATT 1994, in that it results in Astorian prepared food products receiving less favourable treatment than Cosmian ones. This discrimination is not justified by Article XXIV of the GATT 1994. Moreover, Taikon cannot justify its measures as under Article XX of the GATT 1994.

6.2. In response to the panel request, Taikon stated before the Dispute Settlement Body:

Taikon is disappointed that Astor insists on pursuing rights it does not enjoy. In applying the ECP according to ESODEC Regulations, Taikon is not discriminating against Astor, nor is Taikon depriving Astor of any WTO rights. The so-called discrimination that Astor alleges its products are suffering is entirely due to Astor's own decision to leave ESODEC. ESODEC is a regional trade agreement duly notified to the WTO under Article XXIV of the GATT 1994. ESODEC institutions and procedures are a necessary part of the mutual trust that allows ESODEC Members to avoid regulatory barriers between them. Taikon cannot be expected to extend ESODEC treatment to countries outside of the ESODEC mutually agreed regulatory framework, procedures and institutions.

As Taikon has explained during consultations in this dispute, the application of the ECP to prepared foods is not an SPS measure. As Astor appears to concede, its objective is to contribute to the protection of species threatened by the invasive marbled crayfish, including the Stormian crab, by discouraging the commercial breeding of this invasive species everywhere.

Finally, Taikon notes that the ESODEC Regulatory Community Agreement permits the signature of Equivalence Agreements with third countries. If it wishes to obtain equivalence status, Astor should initiate negotiations with the relevant ESODEC institutions.

6.3. The panel was established on 22 July 2019. Upon the request of Astor, the Director-General composed the panel on 15 September 2019.

## 7 TIMELINE

Date	Event
<b>23 January 2009</b>	Astor, Cosmia and Taikon sign the ESODEC Agreement
<b>23 December 2009</b>	The ESODEC Agreement enters into force
<b>15 October 2012</b>	The ESODEC Free Trade Area is notified to the WTO under Article XXIV:7(a) of the GATT
<b>18 October 2012</b>	Astor, Cosmia and Taikon sign the ESODEC Regulatory Community Agreement
<b>24 March 2014</b>	Joint Committee promulgates the RCA at the Cosmopolis Summit
<b>10 March 2015</b>	Joint Committee adopts the ECP Regulation at the Astorville Summit
<b>24 March 2015</b>	The ESODEC regulatory community enters into force
<b>12 October 2017</b>	At the Taikoa Summit, the Joint Committee celebrates the growth of intra-ESODEC trade

<b>14 November 2017</b>	Astor, Cosmia and Taikon request the CITES Secretariat to include the Stormian crab in Annex III of CITES
<b>12 March 2018</b>	ESODEC Joint Committee adopts the Crayfish Ban at the Cosmopolis Summit
<b>2 April 2018</b>	The Crayfish Ban is notified to the WTO through the SPS Notification Submission System
<b>10 July 2018</b>	The ESODEC Regulations Authority issues Directive 44/2018, containing the list of products to be subjected to the ECP in order to implement the Crayfish Ban
<b>18 December 2018</b>	President Terix takes office and announces intention to withdraw from ESODEC
<b>14 January 2019</b>	Astor notifies Taikon and Cosmia of its intention to withdraw from ESODEC
<b>4 April 2019</b>	The ESODEC Regulations Authority issues a report stating that no marbled crayfish were found in Astorian establishments during the March 2019 periodic inspections
<b>13 April 2019</b>	The ESODEC Regulations Authority issues Note 7/2019
<b>14 April 2019</b>	Astor's withdrawal takes effect at midnight
<b>15 May 2019</b>	President Terix initiates visit to Taikon and Cosmia to demand recognition of regulatory equivalence
<b>18 May 2019</b>	President Terix announces the failure of negotiations
<b>31 May 2019</b>	Astor requests consultations over the application of the ECP to Astor's food products
<b>2 July 2019</b>	Astor submits a panel request to the DSB
<b>22 July 2019</b>	The DSB establishes the Panel
<b>15 September 2019</b>	Panel is composed by the Director-General

## 8 ILLUSTRATIVE SOURCES

### 8.1 WTO Reports

Appellate Body Report, *EC – Measures Concerning Meat and Meat Products (Hormones)*, WT/DS26/AB/R, WT/DS48/AB/R, adopted 13 February 1998.

Appellate Body Report, *United States – Import Prohibition of Certain Shrimp and Shrimp Products*, WT/DS58/AB/R, adopted 6 November 1998.

Appellate Body Report, *Australia – Measures Affecting Importation of Salmon*, WT/DS18/AB/R, adopted 6 November 1998.

Appellate Body Report, *Turkey – Restrictions on Imports of Textile and Clothing Products*, WT/DS34/AB/R, adopted 19 November 1999.

Panel Report, *European Communities – Measures Affecting the Approval and Marketing of Biotech Products*, WT/DS291/AB/R, WT/DS292/AB/R, WT/DS293/AB/R, adopted 21 November 2006.

Appellate Body Report, *Brazil – Measures Affecting Imports of Retreaded Tyres*, WT/DS332/AB/R, adopted 17 December 2007.

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**ANNEX I**  
**ESODEC LEGAL INSTRUMENTS (EXTRACTS)**

**A. Agreement Establishing the East Stormy Ocean Development and Economic Community**

*Considering* their shared history, their similar geographical conditions and culture, their common development needs, outlook and destiny,

*Affirming* as their shared goals the preservation of the life and health of Stormian citizens, the purity and cleanliness of the Stormian environment, and the richness of Stormian traditions,

*Mindful* of the benefits of integrating their economies, facilitating inter-Stormian trade, and establishing a rules-based economic community to address their development challenges,

*Decided* to ensure the free flow of goods among their producers, traders and consumers,

*Committed* to the progressive tearing down of tariff and non-tariff barriers to trade among them,

The undersigned High Contracting Parties THEREFORE agree as follows:

**Article 1 – Establishment of the Community**

1. The East Stormy Ocean Development and Economic Community (ESODEC) is hereby established among High Contracting Parties, who, upon ratification or accession, will become Member States of ESODEC.
2. The Community shall have international legal personality.
3. Member States shall abide by all the provisions of this agreement, its protocols, annexes and subsequent agreements and understandings, to the extent and under the conditions provided for under this agreement and the relevant documents. Unless otherwise specified, Reservations to Community agreements, protocols, annexes, understandings and other legally binding instruments are not permitted.

**Article 2 – Economic Integration**

1. Within three years from the entry into force of this Agreement, the Member States shall establish a free trade area in the sense of Article XXIV of the General Agreement on Tariffs and Trade (GATT), eliminating all tariffs in intra-Community trade.
2. From the establishment of the ESODEC Free Trade Area, the Community shall have competence to coordinate the trade policy of Member States. The Member States shall enter into future agreements designed to establish a common external tariff for the external trade of the Community and convert the ESODEC Free Trade Area into a Customs Union.
3. The Member States shall enter into future agreements designed to eliminate non-tariff barriers to the trade among them, through mutual recognition of each other's laws, regulations and standards for products as well as through the adoption of common rules and standards applicable in all Member States.
4. The Community shall aim to harmonize regulations and standards among the Member States. Common rules and standards agreed to within Community institutions shall become directly applicable in the territories of Member States once they enter into force.

#### **Article 14 – Joint Committee**

1. A Joint Committee, composed of representatives of all Member States, shall make decisions in the areas of competence of the Community.
2. Unless otherwise provided, the Joint Committee shall decide by consensus.

#### **Article 15 – Court**

1. A Court shall be established with jurisdiction to settle disputes and issue Advisory Opinions as provided for in the relevant instruments.
2. The Court shall be composed of three Judges. Judges are appointed by consensus by the Joint Committee and shall sit for a term of six years, renewable once.
3. The Court issues Judgments and Advisory Opinions by majority of its Judges. In case of a tie, the President shall have the casting vote.

#### **Article 16 – Secretariat**

1. A Secretariat shall be established to administer the operation of this agreement, as well as its annexes and protocols, and conduct other tasks as may be determined by the Joint Committee.
2. A Secretary-General shall be appointed by the Joint Committee to head the Secretariat.

#### **Article 51 – Withdrawal**

1. Any Member State may notify the Community of its intention to withdraw from this Agreement. Unless the High Contracting Parties agree otherwise, withdrawal shall take effect three months after it is notified to the Community.
2. Upon withdrawal, this Agreement as well as its annexes, protocols and related legislation shall cease to apply to the relevant High Contracting Party.

#### **Article 68 – Headquarters and Summits**

1. The Community shall have its headquarters in Cosmopolis, Cosmia. A suitable headquarters agreement shall be agreed upon between the Community and Cosmia. Community institutions shall be based in Cosmopolis unless otherwise determined by the Joint Committee.
2. To adopt new legal instruments, the Joint Committee shall meet twice a year in a Summit. Save for exceptional circumstances, in Summits Member States shall be represented by their Heads of State or Heads of Government. Summits shall take place in the different Member States sequentially, in alphabetical order.

#### **B. ESODEC Regulatory Community Agreement of 2012 [incorporated in Taikon through Law No 14/2013]**

*Considering* the objectives of the Community laid down in the Agreement Establishing the East Stormy Ocean Development and Economic Community (ESODEC),

*Celebrating* the successful implementation of the ESODEC Free Trade Area and the elimination of tariffs on intra-ESODEC trade,

*Determined* to deepen the integration between the Stormian economies,

*Pursuing* the objective of progressive elimination of non-tariff barriers within the Community,  
The ESODEC Member States THEREFORE agree as follows:

## Chapter I – ESODEC Regulations

### Article 1 – Regulations

1. The Joint Committee may by consensus adopt regulations governing the production, marketing, offering for sale and sale of products throughout the territory of the Community (ESODEC Regulations).
2. After ratification by all Member States, ESODEC Regulations shall be promulgated by the Joint Committee and applied by the national authorities of all ESODEC Member States.

### Article 2 – Regulatory Community

All products subject to ESODEC regulations and lawfully marketed in one Member State shall be admitted for marketing in every other Member State, without undergoing additional technical, sanitary, phytosanitary, or administrative controls to assess conformity with either the relevant ESODEC Regulation or the importing Member's own laws and regulations.

## Chapter II – Supervision and Implementation

### Article 6 – Supervision

1. The Regulations Authority, an independent administrative body, shall oversee the implementation of ESODEC Regulations by all Member States.
2. The Regulations Authority shall remain in close contact with the national authorities of Member States and periodically review the conformity of Member States' laws, regulations and practices with ESODEC Regulations. Member States shall cooperate fully with the Regulations Authority to ensure compliance of their laws, regulations and practices with ESODEC Regulations.
3. The Director-General of the Regulations Authority shall be appointed by consensus by the Joint Committee.

### Article 7 – Implementation

1. At the request of a Member State or the Regulations Authority, the Court shall be competent to determine in a Judgment whether a Member State's laws, regulations and practices conform to ESODEC Regulations.
2. Failure to comply with a Judgment of the Court under this Article, as determined by the Joint Committee in a reasoned Determination, entails the application of measures to be determined by the Joint Committee. In reaching this Determination, the Joint Committee shall act by consensus of the Member States except the Member State found not to be in conformity with the relevant ESODEC Regulation.
3. The Member State at issue may request the Joint Committee to reconsider a Determination of non-compliance. In case the Joint Committee maintains its Determination, the Member State may appeal from this Determination to the Court.
4. Judgments of the Court rendered under this Article shall be final and binding and shall be complied with, implemented and applied by the regulatory authorities of Member States without need for implementing legislation.

### Article 12 – Equivalence Agreements

1. The Joint Committee may enter into reciprocal equivalence agreements with third countries. Equivalence agreements shall establish mutual recognition of equivalence of regulations or conformity assessment, control, testing and approval procedures.
2. Prior to entering into an equivalence agreement, the Joint Committee shall request the Regulations Authority to prepare a report on the laws, regulations and institutional

framework of the exporting country, in order to ensure that these are equivalent to those applied within the Community.

3. In case the exporting country ceases to recognize as equivalent a product exported by the community, the Joint Committee, acting upon a request from the Regulations Authority or any Member State, may determine the cessation of recognition of equivalence under this Article.
4. Equivalence agreements signed under this Article shall comply with the applicable World Trade Organization (WTO) rules, including Article 6 Article of the Agreement on Technical Barriers to Trade (TBT Agreement) and Article 4 of the WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement).

#### **Article 25 – Entry into Force**

1. This Agreement shall enter into force once it is promulgated by the Joint Committee with the exception of Article 2.
2. Article 2 shall enter into force one year after the promulgation of the Agreement. Between the promulgation of this Agreement and the entry into force of Article 2, the Regulations Authority shall, in close contact with the domestic authorities of Member States, set up procedures to ensure the uniformity of procedures across Member States. The Regulations Authority shall propose to the Joint Committee the adoption of any measures necessary for the implementation of this Agreement.

#### **C. ESODEC Regulation 7/2015 of 10 March 2015 Establishing the Enhanced Control Procedure for Potentially Dangerous Products (ECP Regulation)**

*Considering* the shared objectives of the Community, enshrined in the ESODEC Agreement, of preservation of the life and health of Stormian citizens, the purity and cleanliness of the Stormian environment, and the richness of Stormian traditions,

*Celebrating* the success of the ESODEC Free Trade Area in eliminating tariff barriers between ESODEC Member States,

*Celebrating also* the success of the ESODEC Regulatory Community Agreement in eliminating non-tariff barriers to the economic integration of the Stormian nations,

*Determined* to further develop Stormian integration by establishing a common procedure for the control of the safety of products imported into ESODEC Member States,

The Joint Committee hereby ADOPTS the following ESODEC Regulation:

#### **Article 1 – Applicability and Scope**

1. The Enhanced Control Procedure (ECP) applies to any products entering the territory of the Community which the Joint Committee or the Regulations Authority has determined to be a product potentially containing a prohibited product, element, or substance whose entrance in the territory of the community might produce a risk of irreversible damage.
2. The ECP shall be applied by the relevant border control authorities of Member States to detect the presence of products, elements and substances prohibited by ESODEC Regulations in products entering the territory of the Community.

#### **Article 2 – Application**

1. The ECP shall be applied to ensure that the product, substance or element controlled for is not present in the inspected shipment.

2. In exceptional cases, the Regulations Authority may establish a maximum permissible threshold of presence of the product, substance or element controlled for.
3. The length, cost and method of assessment shall be defined in each case by the Regulations Authority.
4. In shipments of products subject to the ECP, the border control authorities of Member States shall ensure that one in every twenty units of product, or 5% of the volume or mass of product imported, is subject to the ECP.
5. Border control authorities shall apply the ECP in accordance with the principles of appropriateness and reasonableness and shall seek to respect the international obligations of ESODEC and those of its Members States.
6. No portion of the cargo being subjected to the ECP shall be brought into the territory of the Community until the ECP is completed.

#### **Article 4 – Enforcement**

1. The exporter of products subject to the ECP shall submit a declaration to the effect that the product being imported does not contain the product, element or substance controlled for in the product subject to control, or does not contain it above the maximum threshold determined by the Regulations Authority under paragraph 2.
2. In case the ECP results in the detection of the product, element or substance controlled for in the product subject to control, or in its detection above the maximum threshold determined by the Regulations Authority under paragraph 2, the exporter or importer responsible for the shipment may choose whether to return the shipment or to have the cargo destroyed by the Member State's border control authority. In the case of particularly hazardous products, the Regulations Authority may determine that the cargo must be destroyed. The return of the shipment or the destruction of the cargo shall take place at the expense of the importer or exporter responsible for the shipment.
3. If an exporter makes a declaration in the sense of paragraph 1 and the ECP results in the detection of the product, element or substance controlled for in the product subject to control, or in its detection above the maximum threshold determined by the Regulations Authority under paragraph 2, the relevant exporter shall receive a warning. An exporter found to have submitted an incorrect declaration more than once within a period of five years shall be prohibited from exporting the product to ESODEC Members for a period of five (5) years.
4. An exporter sanctioned under paragraph 3 may resume importation if it agrees on a conduct adjustment arrangement with the ESODEC Regulations Authority. This arrangement may provide, among others, for increased controls over products exported by that exporter and on-site visits to the production facilities used by that exporter by the ESODEC Regulations Authority.

#### **Article 6 – Equivalence Agreements**

The Joint Committee may waive the application of the ECP to products imported from territories with which the Community has entered into reciprocal equivalence agreements under Article 12 of the ESODEC Regulatory Community Agreement.

#### **D. ESODEC Regulation 13/2018 of 12 March 2018 Concerning the Ban of Marbled Crayfish and Products Containing Marbled Crayfish in the Territory of the Community and Establishing Enforcement Procedures (Crayfish Ban)**

*Considering* the shared objectives of the Community, enshrined in the ESODEC Agreement, of preservation of the life and health of Stormian citizens, the purity and cleanliness of the Stormian environment, and the richness of Stormian traditions,

*Taking into account* the ample evidence relating to the unnatural character of the marbled crayfish, the environmental risks it poses, including to the Stormian crab and as a consequence to traditional Stormian cuisine and culture, and the unknown effects of its consumption on human health,

*Recognizing the importance* of preserving the natural habitat of indigenous species and ensuring that all food products sold within ESODEC are safe for human consumption,

*Mindful* of the growing international consensus with regard to the need to prevent the spread of the marbled crayfish,

The Joint Committee hereby ADOPTS the following ESODEC Regulation:

#### **Article 1**

1. The marbled crayfish (*Procambarus virginalis*) is hereby declared an invasive species in the whole of the Community. Possessing marbled crayfish is prohibited in the entire territory of the Community, including in Member States' territorial waters and Exclusive Economic Zone.
2. No marbled crayfish shall be brought into the territory of the Community, bred within the Community, or placed in the market of Member States.
3. This regulation applies to marbled crayfish as well as to products containing marbled crayfish.

#### **Article 2**

Member States shall ensure that, within three months from the entering into force of this regulation, all existing marbled crayfish are eliminated or otherwise removed from their territory.

#### **Article 3**

1. The Regulations Authority shall oversee the implementation of this regulation by the national authorities of Member States.
2. For the two years following the implementation date referred to in Article 2, the national authorities of Member States shall conduct monthly visits to ocean farms, former breeding facilities for marbled crayfish, food processing plants, hotels and restaurants, and other establishments with the potential to hold marbled crayfish, and report the results to the Regulations Authority.
3. In conjunction with national authorities, the Regulations Authority shall conduct periodic inspections into the territory of Member States to verify the conformity with this regulation of establishments in which there is potential production, trade and consumption of marbled crayfish.
4. The Regulations Authority and Member States may initiate proceedings before the Court under Article 7 of the Regulatory Community Agreement to enforce this Regulation.

#### **Article 4**

1. Marbled crayfish and products containing marbled crayfish are hereby included in the list of prohibited products for the purposes of Regulation 7/2015.
2. Products potentially containing marbled crayfish entering the territory of the Community, as defined by the Regulations Authority, shall be subject to the Enhanced Control Procedure (ECP) under Regulation 7/2015.

**E. Regulations Authority Note 7/2019**

*Considering* that the withdrawal of Astor from the Community takes effect at midnight on 14 April 2019,

*Noting* that, on the same date, the ESODEC Agreement and all of the Community legislation ceases to apply to Astor, including participation in the ESODEC Free Trade Area and in the ESODEC Regulatory Community Agreement,

*Observing* that Article 1 of Regulation 7/2015 requires that the Enhanced Control Procedure be applied to designated products entering into the territory of the Community from third countries,

*Taking into account* that no trade liberalization or equivalence agreement has been reached between the Community and Astor and that their mutual relations are now governed solely by the rules of the World Trade Organization (WTO),

The Regulations Authority INSTRUCTS all customs and border agencies in Community Member States to adopt the following measures from 14 April 2019:

1. All products imported from Astor into a Community Member State shall be subject to the tariff applied by that Member State to third countries Members of the World Trade Organization;
2. All products imported from Astor into a Community Member State shall be subject to the regulatory controls applicable to third countries Members of the World Trade Organization.

Cosmia, 13 April 2019

**Marcus Galata**  
DIRECTOR-GENERAL  
ESODEC REGULATIONS AUTHORITY

**ANNEX II**

**TRADE DATA**

**A. Prepared Foods with Stormian Crab and Marbled Crayfish Imported into Taikon (hundreds of kilograms)**

**Prior to the entry into force of the Crayfish ban**

	Jul 2017	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018
From Astor, containing												
Crab	36	45	47	48	50	50	51	52	48	48	12	12
Crayfish	8	8	9	10	13	13	14	17	18	20	22	23
From Cosmia, containing												
Crab	12	14	17	17	19	21	23	28	35	35	40	40
Crayfish	6	6	6	6	6	7	7	7	8	9	9	11
Other, containing												
Crab	1	1	2	2	2	3	4	4	4	4	5	5
Crayfish	3	4	4	5	6	7	7	8	9	10	12	12

**Following the entry into force of the Crayfish ban (10 July 2018)**

	Jul 2018	Aug 2018	Sep 2018	Oct 2018	Nov 2018	Dec 2018	Jan 2019	Feb 2019	Mar 2019	Apr 2019	Jun 2019	Jul 2019
From Astor, containing												
Crab	36	45	47	48	50	50	51	52	50	35	16	12
Crayfish	11	0	0	0	0	0	0	0	0	0	0	0
From Cosmia, containing												
Crab	12	14	17	17	19	21	23	28	35	40	42	48
Crayfish	06	0	0	0	0	0	0	0	0	0	0	0
Other, containing												
Crab	1	1	0	0	0	0	0	0	0	0	3	3
Crayfish	7	0	0	0	0	0	0	0	0	0	0	0

**B. Stormian crabs imported into Taikon (boxes with 40-50 units)**

**Prior to the entry into force of the Crayfish ban**

	Jul 2017	Aug 2017	Sep 2017	Oct 2017	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018	Apr 2018	May 2018	Jun 2018
From Astor	35	45	46	47	51	51	52	52	55	57	58	60
From Cosmia	10	11	17	17	19	21	23	28	35	37	42	45
Other	20	24	21	24	25	31	40	39	42	41	52	51

**Following the entry into force of the Crayfish ban (10 July 2018)**

	Jul 2018	Aug 2018	Sep 2018	Oct 2018	Nov 2018	Dec 2018	Jan 2019	Feb 2019	Mar 2019	Apr 2019	May 2019	Jun 2019
From Astor	64	68	77	83	88	95	110	148	217	240	255	247
From Cosmia	47	52	66	65	75	84	110	112	124	154	185	186
Other	24	12	12	12	9	13	8	8	5	12	24	26

### ANNEX III

#### ABSTRACT OF SCIENTIFIC STUDY

E.D. Partuto, A. M. Kowai and K. C. Mishou, 'The Spread of Parthenogenetic Crayfish (*Procambarus virginalis*) in the East Stormy Ocean Region' (2017) 9 Global Journal of Marine Ecology 150-178 [fictional].

This is the first study of the spread of the parthenogenically reproducing marbled crayfish, *Procambarus virginalis*, in islands of the East Stormy Ocean. Previous studies, conducted in Europe, North America, and Africa, have found this to be a high-risk invasive species in regions where it was introduced for ornamental reasons (pet trade) and then spread to the environment. This study considers the spread of the marbled crayfish in a region where it has been introduced for commercial farming. We identified the presence of six newly established populations of marbled crayfish, three in Astor, two in Cosmia and one in Taikon, and followed their development and the interaction of specimens with the local ecosystem. Whereas no freshwater crayfish population previously existed in the region, the marbled crayfish competes with a number of indigenous species, most notably the Stormian crab (*Heikeopsis tempestensis*), a saltwater species whose females require a period of 3-4 weeks in freshwater at the critical stages of the reproductive cycle. At this critical stage, the female Stormian crab utilizes the safe environment of river mouths to develop and hatch the eggs. In the six populations studied, in four we have observed a 70% mortality rate in females at this stage, compared to an observed 25% in regions where no crayfish exist (as reported in Partuto, Kowai and Mishou (2013)). This suggests that the spread of marbled crayfish constitutes a risk to the continued existence of the Stormian crab and leads us to recommend an immediate halt to the importation, production and commercialization of marbled crayfish in the East Stormy Ocean region.

**ANNEX IV  
MAP OF THE EAST STORMY OCEAN**

