The Kerguelen Plateau: Interactions between the Law of the Sea and the Antarctic Treaty

Authors:

Haydn Titterton
Institute for Marine and Antarctic Studies, University of Tasmania, Private Bag 129, Hobart, Tasmania 7001, Australia

Marcus Haward
Institute for Marine and Antarctic Studies, University of Tasmania, Private Bag 129, Hobart, Tasmania 7001, Australia

Corresponding Author:

Haydn Titterton
Email – Haydn.Titterton@utas.edu.au

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Abstract

Australia has benefited immensely from the maritime zone provisions of the 1982 United Nations Convention on the Law of the Sea (LOSC), particularly the provisions for the Extended Continental Shelf under *Article 76*. Australia's comprehensive submission of continental shelf data to the Commission on the Limits of the Continental Shelf in 2004 included data occurring inside the Antarctic Treaty Area for three separate Australian territories; the Australian Antarctic Territory, Heard Island and McDonald Islands, and Macquarie Island. This raises questions surrounding the interactions between the LOSC and the Antarctic Treaty in the Southern Ocean. The paper focuses on the Kerguelen Plateau continental shelf jurisdiction, offering a timely analysis of Australia's strategic interests here, as Australia seeks to prepare a new or revised Extended Continental Shelf data submission for Williams Ridge. Australia has sought to strike a strategic balance between supporting its territorial interests and derived benefits under LOSC in the Southern Ocean, whilst maintaining and further enhancing some of the key values and norms of the Antarctic Treaty System (ATS). The KP jurisdiction represents a strategic pursuit of territorial interests, carefully balanced with a determination to strengthen Australia's influence within the ATS and enhance the reach of its provisions, particularly in regard to environmental protection and the mining prohibition under the Madrid Protocol.

Keywords

Law of the Sea, Antarctic Treaty, Kerguelen Plateau, Australia, Extended Continental Shelf, Commission on the Limits of the Continental Shelf.

1. Introduction

Australia has taken substantial action to define its maritime jurisdiction in recent decades, the culmination of which is represented in the *Seas and Submerged Lands Act (Limits of the Continental Shelf) 2012* (SSLA Proclamation). This legislation declared Australia's maritime jurisdiction off the Australian mainland and numerous offshore and external territories. As a result, Australia possesses the third largest maritime jurisdiction in the world, extending off both the Australian mainland, and its numerous external territories (Kaye, 2014; Haward, 2014). Included in the SSLA Proclamation are the details of a vast Extended Continental Shelf (ECS) jurisdiction, attained under the provisions of *Article 76* of the United Nations Convention on the Law of the Sea (1982) (LOSC).

The region south of 60 degrees South Latitude is subject to the provisions of the Antarctic Treaty (1959) and the succeeding instruments that form the Antarctic Treaty System (ATS). Concurrently, the LOSC applies to all of the world's oceans, including the Southern Ocean. This legal regime overlap produces important questions for the governance of the Antarctic region, particularly in regard to a state's pursuit of coastal rights under the LOSC in the area

constrained by the provisions of the Antarctic Treaty and ATS. This regime interplay was central to Australia's 2004 submission to the CLCS, and it significantly influenced the way Australia handled its submission (Hemmings and Stephens, 2009; Jabour, 2009).

On 15 November 2004, Australia made a comprehensive submission of geological and geophysical data to the Commission on the Limits of the Continental Shelf (CLCS) pursuant to *Article 76* of the LOSC, which requires the coastal state to submit data to the CLCS for the purpose of extending a continental shelf jurisdiction beyond 200 nautical miles (nm) from Territorial Sea baselines. The Australian submission included continental shelf data for all of its territories, including its offshore and external territories. Three of these territories; the Australian Antarctic Territory (AAT), Heard Island and the McDonald Islands (HIMI) and Macquarie Island, included ECS data occurring inside the Antarctic Treaty Area (ATA) (Commonwealth of Australia, 2004).

Of these continental shelf regions, the remote sub-Antarctic territory of HIMI generates the largest continental shelf jurisdiction. As one of the world's largest underwater plateaus, the KP is vast, with the Australian jurisdiction encompassing an area of approximately 1.13 million square kilometres (Geoscience Australia, 2020; Geoscience Australia, 2009). The KP represents the largest continental shelf region endorsed by the CLCS in the Australian submission, and remarkably, a significant portion of this jurisdiction extends into the ATA (Geoscience Australia, 2009). Australia has long-recognised interests in the Antarctic region broadly, but little is known of its strategic interests in the KP specifically. In this paper, we examine Australia's role in managing the nexus between the LOSC and the Antarctic Treaty, using the KP as a case-study. Australia's interests and state practice are investigated, providing insights into approaches to managing this regime nexus. Finally, we discuss the implications

of the regime overlap and Australia's state practice for the future governance of the Antarctic and Southern Ocean.

The research utilised a multi-method, qualitative social science approach to obtain data, employing a content review and analysis of the literature, key legislation and international legal documents. A small number of personal communications were also conducted to compliment the content analysis and diversify the research methodology. These communications were targeted at individuals with specific expertise in relation to the research subject.

2. Australia's Broad Antarctic Interests

2.1 – Australia's Antarctica

Australia has a long-held and enduring affiliation with the Antarctic region, with significant national interests vested in the Southern Ocean and Antarctica (Haward et al., 2006). Naturally, Australia's interests are closely related to both Australian Antarctic policy, and the way in which Australia seeks to influence within the ATS and other international fora (Haward and Cooper, 2014; Hodgson-Johnston, 2015). With a claim to 42 percent of the Antarctic continent, as well as its sub-Antarctic territories HIMI and Macquarie Island, Australia has the most extensive stake in the Antarctic region as a claimant of territory (Haward et al., 2006). Having played a key role in the negotiation of the Antarctic Treaty, Australia was influential in the establishment of the Antarctic norms and values encoded in the Treaty, and as an original signatory, Australia maintains ATCP decision-maker status at Antarctic Treaty Consultative Meetings (ATCMs) (Bray, 2016). As a party to all subsequent legal instruments that comprise the ATS, as well other applicable international instruments such as the LOSC, Australia is

heavily vested in the legal and political systems that govern Antarctica. Thus, Australia maintains a powerful position in influencing Antarctic affairs, through its physical and political presence in the region, and it's evident Antarctic interests (Kriwoken, Jabour and Hemmings, 2007; Haward and Griffiths, 2011; Bray, 2016; Haward and Cooper, 2016). These broad interests will be briefly explored.

2.2 - Demonstrating and Upholding Australian Sovereignty

Despite the scarce international recognition of Australia's Antarctic territorial claim, the demonstration of Australian sovereignty over the AAT has been at the core of Australian conduct in the Antarctic region, and it remains an integral part of Australia's Antarctic interests (Dodds and Hemmings, 2009; Haward et al., 2006; Baird, 2004). Demonstrating sovereignty and the calculated pursuit of associated rights has been a notable aspect of Australian conduct in the AAT, HIMI and Macquarie Island (Dodds and Hemmings; 2009). Australia's territorial stake in Antarctica is improbably large, and as such the manner in which Australia regards and acts upon its claim to sovereignty is of significant consequence to Antarctica in both a physical and political sense. This commitment to sovereignty over the AAT has been entrenched in Australia's conduct since the beginnings of international negotiations for an Antarctic governance regime (Dodds, 2010; Bulkeley, 2010).

2.3 - Maintaining Australia's commitment to the Antarctic Treaty System

Australia's commitment to both the Antarctic Treaty and the ATS forms an integral part of Australia's Antarctic strategic interests (Haward et al., 2006; Haward 2010; Haward and Cooper, 2014). The ATS evidently serves Australia's interests, as Australian government

policy objectives have long included the maintenance of the ATS, and enhancing Australia's influence within it (Baird, 2004). As a key negotiator of numerous ATS instruments, including its pivotal role with France in the negotiation and development of the Protocol on Environmental Protection to the Antarctic Treaty (1991) (Madrid Protocol), Australia's commitment to the core values of the ATS are unmistakable, and it has played a pivotal role in developing those values (Baird, 2004; Haward and Griffiths, 2011; Kriwoken, Jabour and Hemmings, 2007; Blay and Tsamenyi, 1990; Blay, 1992). Australia's commitment to the principles of the Madrid Protocol were reiterated in 2016 under the *Santiago Declaration*, where Australia declared a strong and unequivocal commitment to any activities relating to mineral resources, other than scientific research (ATCM XXXIX, 2016). Further, as the depository state for the Convention on the Conservation of Antarctic Marine Living Resources (1980) (CAMLR Convention), with the CCAMLR headquarters located in Hobart, Australia is fundamentally and integrally embedded in this Convention and its provisions for the conservation of living resources in the Southern Ocean (Haward and Cooper, 2014). Further still, the Antarctic Treaty enables Australia's claim to the AAT to endure, via the settlement of disputes over it. Upholding the provisions of the Antarctic Treaty is thus of vital importance to Australia's territorial interests in Antarctica, and subsequently Australia's support for the Antarctic Treaty and the ATS is integrally linked to its interest in maintaining its commitment to the AAT (Haward et al., 2006). These broad interests are reflected in Australia's conduct in the Antarctic region, and as such they are notable in Australia's conduct regarding its pursuit of an ECS jurisdiction off HIMI. Australia's interests in the KP specifically will now be explored.

3. The Intersection of the Law of the Sea and the Antarctic Treaty

3.1– Regime interplay: The Law of the Sea and the Antarctic Treaty

The nexus between the LOSC and the Antarctic Treaty stimulates noteworthy geopolitical issues for Australia, and for all parties concerned with either instrument. Their interplay in the Antarctic region can produce sensitive issues regarding the exercise of maritime rights under the LOSC, in areas constrained by the provisions of the Antarctic Treaty and the ATS. The Antarctic Treaty's *Article IV* directly addressed the question of territorial claims and disputes in Antarctica upon its entry into force in 1961, by setting the disputes over territorial claims aside, and leaving all existing claims as they were in 1961. All state signatories to the Antarctic Treaty maintain their positions regarding the status of these claims, whilst:

> *'No acts or activities taking place while the present Treaty is in place shall constitute a basis for asserting, supporting or denying a claim to territorial sovereignty in Antarctica or create any rights of sovereignty in Antarctica. No new claim, or enlargement of an existing claim, to territorial sovereignty in Antarctica shall be asserted while the present Treaty is in force'* (Antarctic Treaty, 1959, Article IV).

Whilst *Article IV* effectively diffuses disputes over the sensitive issue of territorial claims in Antarctica, detail is lacking with regard to maritime zones under this provision. Furthermore, the Antarctic region was never discussed in any of the three Conferences on the Law of the Sea that facilitated the development of the LOSC, and subsequently, there are no specific provisions or details that stipulate the LOSC's applicability to Antarctic territories (Haward, 2009). The only reference to maritime space in the Antarctic Treaty is supplied by *Article VI,* which *inter alia,* states that:

> *'[…] nothing in the present Treaty shall prejudice or in any way affect the rights, or the exercise of the rights, of any State under international law with regard to the High Seas in that area.'* (Antarctic Treaty, 1959).

Whilst *Article VI* clearly protects the rights of states in regard to the High Seas, the issue still remains complicated and contentious, as the Treaty does not stipulate which waters constitute High Seas, or further, if there are any specific implications for the maritime space directly appurtenant to Antarctic territorial claims (Homan, 2006). As a result, divergent opinions arise, and controversy surrounds the extent to which the exercise of coastal rights by Antarctic claimant states is permissible, or whether coastal states can even exist in Antarctica due to the unique status of territorial claims there (Haward, 2009; Baird, 2004). Claimant states naturally view the High Seas as beyond the limits of their respective maritime zones, whilst non-claimants, who reject the establishment of maritime zones, have argued that the High Seas extend to the coastal limits of the Antarctic continent (Homan, 2006; Baird, 2004). This issue reflects the longstanding tensions over territorial sovereignty in Antarctica, which lies at the core of the Antarctic Treaty's purpose. As a result, the nexus between the LOSC and the Antarctic Treaty continues to present unresolved issues in relation to maritime zones in Antarctica today.

In many ways the LOSC and the Antarctic Treaty deliver polarising governance regimes, and the provisions for exclusive rights via maritime zones under the LOSC appear to be at conflict with the sensitive issue of sovereignty in Antarctica. The LOSC's provisions for maritime zones are state-centric, with a focus on allocating rights to resources, whilst the Antarctic Treaty establishes significant provisions for international cooperation and the settlement of disputes over claims to sovereignty. Nonetheless, their potential to exist in harmony is not

inconceivable (Haward, 2009), and this ambition was formally expressed by Australia in its submission to the CLCS in 2004 (United Nations, 2004).

Australia, having the largest claim to territory in Antarctica, as well as its two sub-Antarctic territories, has been ultimately concerned with the nexus between the LOSC and the Antarctic Treaty, as both instruments strongly support its national interests in the region (Haward and Cooper, 2014; Haward, 2009; Baird, 2004). Developing national policies which reflect Australia's support for both regimes and balancing their interactions in the pursuit of national interest is evident in Australia's conduct and the discourse for both instruments (Baird, 2004). Furthermore, as an original signatory to both the LOSC and the Antarctic Treaty, Australia was the first Antarctic claimant state to formally test the interface of the two instruments regarding the ECS, via its submission to the CLCS in 2004.

3.2– The Kerguelen Plateau and Williams Ridge

The geographic coordinates of the HIMI continenral shelf jurisdiction were established under the SSLA Proclamation on 24 May 2012, in accordance with Recommendations provided by the CLCS in 2008 (SSLA Proclamation, 2012; United Nations, 2012). Details of the jurisdiction are available in Appendix 1. Both the HIMI Exclusive Economic Zone (EEZ) and ECS jurisdictions share a delimited boundary with the French territory Îles Kerguelen, in conformance with customary practice, which was established via the bi-lateral *Agreement on Marine Delimitation between the Government of Australia and the Government of the French Republic* (1982). The southernmost boundary of Australia's HIMI ECS is also delineated at the outer limits of the EEZ of the AAT. Interestingly, the CLCS endorsed data for the KP that occurred inside of the 200nm EEZ off the AAT (United Nations, 2008), and Australia therefore

had the option to proclaim its HIMI ECS jurisdiction within the scope of the AAT EEZ. However, any action to do so would have undoubtedly weakened the integrity of Australia's claim to the AAT, and could have reflected that Australia views the status of the AAT EEZ differently to its other jurisdictions. Whilst an ECS for HIMI occurring inside of the AAT EEZ could have been endorsed under the LOSC, the deliniation of the HIMI ECS at the AAT EEZ was an act of strategic deliniation, aimed at supporting all of Australia's territorial interests (Haward et al., 2006), as confirmed in personal communications with two key informants.

Whilst the CLCS Recommendations to Australia endorsed a vast area of ECS on the KP, it was also the region with the most significant variance between the Australian submission and the CLCS Recommendations, the most significant of which was for Williams Ridge, a geological feature on the Eastern flank of the KP. The nature and origin of Williams Ridge was deemed unresolved in the CLCS Recommendations, on the basis that the data provided only displayed indirect evidence of its nature and origin, and it was therefore not deemed to be a natural component of the continental margin in the sense of *Article 76, Paragraph 6* of the LOSC (Recommendation 50) (United Nations, 2008). Australia therefore maintains the option to revisit this region in the future via a new or revised submission to the CLCS under *Annex II, Article 8* of the LOSC.

In January 2020, Williams Ridge became the focus of an Australian marine research voyage, *RV Investigator* voyage IN2020_V01. This scientific voyage was responsible for the collection of geological and geophysical data from Williams Ridge, which *inter alia*, could facilitate a new or revised submission to the CLCS for the purpose of incorporating Williams Ridge into Australia's HIMI continental shelf jurisdiction. One of two main objectives of voyage IN2020_V01 was:

> *"To acquire, analyze, and interpret data and samples necessary for Australia to make a new or revised submission to the UN Commission on the Limits of the Continental Shelf (CLCS). The purpose is to extend Australia's marine jurisdiction to include William's Ridge, an extension of the Central Kerguelen Plateau, under the UN Convention on the Law of the Sea"* (Marine National Facility, 2019).

Whilst financial support from the Australian government was not directly procured for voyage IN2020_V01, representatives from both the Department of Foreign Affairs and Trade and the Attorney-General's Department expressed support in letters of approval supplied to the voyage Chief Scientist.

Geoscience Australia (GA) is the government agency tasked with the preparation of data for the purpose of a CLCS submission and was represented onboard IN2020_V01. In 2016, the prospect of a new or revised submission for Williams Ridge was brought to attention by GA in a written submission to a Senate inquiry titled *Australia's future activities and responsibilities in the Southern Ocean and Antarctic waters*. This submission emphasised the strategic importance of Williams Ridge and the KP in supporting Australia's interest in the effective demonstration of sovereignty, as well as the contribution that future acquired geophysical and geological data could make to scientific understandings, with applications for sustainable living resource management in the KP region falling under the jurisdiction of the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) (Geoscience Australia, 2014).

3.3 – Strategic diplomacy and the LOSC-Antarctic Treaty interface

During the 10-year period leading up to Australia's submission to the CLCS in 2004, Australia had a challenging and consequential decision to make. That was, whether it should include data

for the continental shelf appurtenant to the AAT (Baird, 2004). Given the unique legal and political status of Antarctica under the Antarctic Treaty and the critical effect of its *Article IV*, the manner in which this issue was addressed was sensitive and it had the potential to inflame or provoke other claimant states and Antarctic Treaty Consultative Parties (ATCPs) (Jabour, 2009; Baird, 2004). As Australia had already signed and ratified the LOSC upon its entry into force in 1994, it was the first of the Antarctic territorial claimant states to meet its 10-year deadline for a submission to the CLCS under *Annex 2, Article 4* (Baird, 2004; Schofield, 2008; Hemmings and Stephens, 2009). Australia therefore needed to develop a strategy for its Antarctic continental shelves which spoke to its strategic interest in upholding Australian sovereignty in Antarctica, as well as its interest in protecting and upholding the values of the ATS, both of which are integral to Australia's Antarctic agenda (Haward et al., 2006).

As discussed, *Article 4* of the Antarctic Treaty effectively diffuses disputes over territorial claims and has allowed Australia's claim to the AAT to endure since 1961, despite a lack of universal recognition (Scott, 2021). This dispute settlement is fundamental to maintaining peace in Antarctica, and therefore provoking any new or revisited disputes over the AAT would have not only have been disruptive to Australia, but the entire geopolitics of Antarctica, and it was thus a key consideration in the manner in which Australia addressed the issue of the AAT ECS. There was anticipation in the discourse as Australia approached its 10-year CLCS submission deadline (Baird, 2004), as the manner in which Australia addressed this issue could potentially produce the most dramatic geopolitical change in Antarctica since the entry into force of the Antarctic Treaty in 1961. Personal communications with two key informants confirmed that Australia had a strict reading of the 10-year deadline under *Annex 2, Article 4* of the LOSC, and thus failure to include Antarctic data in its CLCS submission would have

weakened Australia's claim to the AAT and its associated right to the continental shelf (Baird, 2004).

Australia's solution was pragmatic, well-orchestrated, and as Jabour described it, a diplomatic masterstroke (2009). Attached to Australia's 2004 CLCS submission was a letter to the Secretary-General of the United Nations which *inter alia*, stated:

> *"Australia requests the Commission in accordance with its rules not to take any action for the time being with regard to the information in this Submission that relates to continental shelf appurtenant to Antarctica"* (United Nations, 2004).

By including continental shelf data for the AAT, yet requesting the CLCS not to consider that data for the time-being, Australia was able to meet its obligation under *Annex II*, *Article 4* of the LOSC, whilst reserving its right to have this data assessed in the future by meeting the 10-year deadline. Excluding data for the AAT continental shelf from the CLCS submission in 2004 would have undoubtedly weakened the integrity of Australia's claim to sovereignty over the AAT, as it would have reflected that Australia views the AAT differently to its other territories (Baird, 2004). Likewise, submitting data without qualification could have provoked significant disruption within the Antarctic Treaty, as it had the potential to reignite disputes over territorial sovereignty.

Official communications were received from the United States, Russia, Japan, France, the Netherlands, Germany and India regarding Australia's submission of data appurtenant to the Antarctic continent (United Nations, 2012). All of these communications acknowledged Australia's request to the CLCS not to take any action for the time being, yet reiterated their respective non-recognition of claims to Antarctic territory and their subsequent incapability of producing maritime zones (United Nations, 2012). The Netherlands went so far as to claim that

there was an unresolved land *dispute* in relation to Australia's claim to the AAT, displaying a curious regard for the effect of the Antarctic Treaty's *Article IV* (United Nations, 2012). The CLCS accepted Australia's request regarding the data submitted off the Antarctic continent without comment, and it did not issue any Recommendations relating to the continental shelf off Antarctica (United Nations, 2008; Jabour, 2009).

There is explanation for the lack of substantial disruption arising from Australia's submission of data for the AAT to the CLCS. Australia's strategy for submitting data off the AAT was a highly calculated and premeditated act of diplomacy. Consequently there was little to no speculation or anticipation among Antarctic territorial claimants and ATCPs in awaiting Australia's CLCS submission. Personal communications revealed that Australia was involved in substantial diplomatic discussions in the lead up to the CLCS submission, in which the exact nature of Australia's submission of Antarctic data was revealed. Australia fully disclosed how it would address the continental shelf off the AAT in its submission to the CLCS to all ATCPs, and there were consequently no surprises to these states when Australia made its submission in 2004. Likewise, the official responses of ATCPs were also premeditated in these diplomatic efforts (except the Netherlands). Through calculated and strategic diplomacy, Australia ensured that it minimised the political disruption that this submission could have produced.

Overall, the Australian submission of Antarctic data was a calculated and effective exercise, as it managed to balance Australia's territorial interests alongside the delicate politics that surround the status of this territorial claim. By submitting the data within the 10-year time frame and requesting the Commission not to look at that data for the 'time being', the control remains in Australia's hands to address the CLCS in the future regarding this data, should it ever aspire to do so. Further, Australia effectively demonstrated that it views the AAT as sovereign, as per all of its other territories (Baird, 2004).

It is also worth noting that the 2004 CLCS submission was not the first time Australia has acted in relation to the continental shelf appurtenant to the AAT. Australia included the continental shelf extending from the AAT in its 1953 *Continental Shelf Declaration*, which predated the negotiations and entry into force of the Antarctic Treaty (Haward et al., 2006; Baird, 2004; Goldie, 1954; Serdy, 2005). Australia considers its right to the continental shelf off Antarctica to be inherent, as it is a maritime zone generated from the AAT which it considers upheld and sovereign. Furthermore, in the view of Australia, the continental shelf is not territory, but an area where rights are exercised under international law, and since *Article VI* protects the rights and the exercise of rights under international law in regard to the High Seas, Australia's interests here are protected, albeit rather ambiguously.

4. Australia's Strategic Interests in the Kerguelen Plateau

4.1 – Demonstrating Australian Sovereignty

There is potentially no better way to demonstrate and confirm a claim to sovereignty than to exercise and enforce rights provided under international law without dispute (Triggs, 2011). Under the LOSC, the generation of maritime zones is dependent on the effective demonstration of sovereignty (Homan, 2006). The CLCS Recommendations to Australia in 2008, and Australia's subsequent declaration of an ECS off HIMI in 2012 both proceeded uncontested, and thereby functioned as a validation of Australia's claim to sovereignty over HIMI. This unfettered declaration of exclusive rights put to rest a dispute which arose in the Volga case between Russia and Australia in 2002 at the International Tribunal of the Law of the Sea (ITLOS). The case arose as a result of the Australian Navy's apprehension of the Russian

flagged vessel 'Volga' on 6 February 2002, for alleged illegal fishing inside the HIMI EEZ. ITLOS Vice-President Vukas presented an argument in a Declaration that Australia's HIMI did not adequately meet the criteria of the *Regime of Islands* provided by *Article 121(3)*, which states that rocks which cannot sustain human habitation or economic life of their own shall have no EEZ or continental shelf. Subsequently, Vukas claimed that the establishment of an EEZ or continental shelf off HIMI was contrary to international law, on the basis that HIMI did not satisfy these criteria (ITLOS, 2004).

Australia's submission of ECS data to the CLCS in 2004 created an opportunity and forum for comment by other states regarding the status of Australia's sovereignty over HIMI and its related right to maritime zones under the LOSC. Nonetheless, Australia's submission of data for the HIMI ECS, including a significant portion which extended into the ATA proceeded unchallenged (United Nations, 2004). Likewise, Australia's declaration of the HIMI continental shelf jurisdiction under the *SSLA Proclamation* in 2012 also ensued without comment, and subsequently reinforced Australian sovereignty over HIMI. Despite the precedent of the Vukas judgement, any dispute over Australia's sovereignty over HIMI is now implausible, due to the absence of contest surrounding Australia's pursuit of the HIMI ECS, and its declaration in 2012 under the *SSLA Proclamation*. Australia has effectively demonstrated and strengthened its sovereignty over HIMI, which exemplifies Australia's key strategic interest of demonstrating and upholding sovereignty in the Antarctic, via the pursuit of exclusive rights to the continental shelf under the LOSC (Dodds and Hemmings, 2009).

4.2 – Enhancing environmental protection in the Southern Ocean

Australia's proclamation of a continental shelf jurisdiction off HIMI in 2012 has a significant capacity to enhance environmental protection in the Antarctic region. The Madrid Protocol provides the Antarctic region with a comprehensive regime for environmental protection that includes, *inter alia,* a prohibition on any activities relating to mineral resources other than scientific research *(Article 7)* inside the ATA. However, like all international agreements, the Madrid Protocol only applies to state parties to the agreement. This leaves the Antarctic environment vulnerable to the impacts of activities that occur outside the international scope of the Madrid Protocol. The declaration of sovereign rights to the natural resources of the seabed and subsoil within the HIMI continental shelf jurisdiction gives Australia the capacity to control and legislate the manner in which these resources are managed and harvested. This includes the right preclude or authorise access to seabed resources to all state parties to the LOSC. As the international scope of the LOSC is significant, with 157 signatories and 168 state parties to the Convention, the reach and impact of Australia's *SSLA Proclamation* is substantial (UN Treaty Collection, 2020).

The Madrid Protocol applies in scope to the ATA, and as such the applicability of the Protocol to the seabed is contested and remains unresolved (Peeters, 2006; Rothwell, 1994). Furthermore, it is unclear whether the Protocol applies to a state's continental shelf jurisdiction (Peeters, 2006). However, according to a key informant, Australia is of the view that the Madrid Protocol applies to the entire area south of 60 degrees South Latitude, including the seabed and subsoil. Therefore, any mineral resource activities occurring in the entire area south of 60 degrees South Latitude are, in Australia's understanding, prohibited. This interpretation of the Madrid Protocol's applicability to the seabed is ratified in national legislation under the *Antarctic Treaty (Environment Protection) Act 1980* (Amended) (ATEP Act). The application

of a mining prohibition to the continental shelf of HIMI in the area south of 60 degrees South is enforced under Part 5 19A(1)(b) of the *ATEP Act*.

The *ATEP Act* confirms that any activities relating to the mining of mineral resources in areas of Australia's continental shelf jurisdiction occurring within the ATA are presently unconcerned with Australia's Antarctic agenda, as they are prohibited under Australian law. Two key informants further reiterated that the prospect of any mining activity occurring within Australia's continental shelf jurisdiction in the ATA is extremely implausible, given Australia's strong advocacy for upholding the principles of the ATS, its active role in developing the Madrid Protocol, and the national legislation that prohibits any such activity. Likewise, any prospect of mining above 60 degrees South Latitude on the KP in the near future was also considered unforseeable.

There is no time-limit on the mining ban under the Madrid Protocol, as is commonly misreported (Gilbert and Hemmings, 2015; Press, 2015). Rather, there are stringent provisions that can allow for its modification under specific circumstances (Coburn, 2017). Up until 2048, any amendment to the Protocol would require unanimous agreement among all ATCPs. After 2048, any proposed amendment would require the measure to be adopted by all Consultative Parties, including three quarters of the ATCPs at the time of the Protocol's adoption in 1991, and it would further need to be implemented by all states that were ATCPs at the time of the Protocol's adoption (Coburn, 2017). Therefore, any amendment to the Protocol's mining prohibition would require a very substantial change in attitudes towards mining in the ATA. Put simply, after 2048, an amendment to the Protocol becomes more possible, but still improbable. In securing exclusive rights to the resources of the seabed, Australia has the right to prohibit seabed mineral resource harvesting, so long as it remains in the interest of Australia

to prohibit mining in the ATA. In effect, this strengthens the provisions for the mining prohibition, through the exclusion of the KP area from mining by non-parties to the Madrid Protocol, as well as the exemption of the region to any potential amendment of the Protocol concerning the mining prohibition.

As a result of Australia's *SSLA Proclamation*, the areas of the KP jurisdiction that lie south of 60 degrees South Latitude are, in all present implications, protected from any mineral resource activities for the foreseeable future. Very few surveys have actually investigated the mineral resource capacity of the KP. Whilst it is known to be a source of cobalt-rich ferromanganese crusts, a valuable source of earth minerals which and are of particular interest to the technology industry (Miller et al., 2018; Cuyvers et al., 2018), the viability of harvesting these resources is impracticable in the near-term due to the remoteness of the KP, the depths at which they occur, and the availability of more viable resources elsewhere (Hemmings and Stephens, 2009). Furthermore, the political struggle that would ensue if Australia sought to harvest any mineral resources on the KP is significant, due to its partial situation within the ATA, which functions as a further deterrent to any such activity.

4.3 – Living resource management and conservation

Whilst an ECS jurisdiction has no direct implications for the living resources of the water column, it does give the coastal state exclusive rights to the resources of the seabed, inclusive of living resources that are sedentary, or unable to move except in constant physical contact with the seabed or subsoil (*Article 78*, LOSC) (Mossop, 2018). This right may permit the state exercising its jurisdiction to regulate or prevent activities that affect these resources (Mossop, 2018). In the case of the KP, Australia may have the capacity to prevent or regulate an activity

that occurs on the seafloor that may impact upon Australia's exclusive seabed and subsoil resources (Mossop, 2007). One hypothetical example of this is bottom trawl fishing. Although the fish species often targeted by bottom trawl fisheries are in no way the exclusive resource of the coastal state exercising an ECS jurisdiction, the practice of benthic trawling may be prohibited or regulated by the coastal state due to its occurrence on the seafloor, and subsequent impacts it may cause to the benthos and sedentary living resources (Mossop 2018; Mossop 2007). This indirectly facilitates a potential mechanism for environmental protection. However, the exact manner in which the coastal state may enforce this remains unclear and the right to do so is contestable, given that the water column above the ECS is High Seas, and its resources are internationally available.

Australia's KP continental shelf jurisdiction occurs predominantly within the spatial scope of CCAMLR. The Chairman's Statement is appended to the CAMLR Convention, and provides that the management of living resources within a sub-Antarctic coastal state's EEZ (with specific reference to France's EEZ) inside of the CCAMLR area remains the management responsibility of the state exercising the jurisdiction, so long as this jurisdiction is recognised by all Convention Contracting Parties (Miller, 2015). It is generally accepted that these provisions apply to all sub-Antarctic states exercising an undisputed jurisdiction in the CCAMLR area. Under the Chairman's Statement, the EEZ remains the management responsibility of the coastal state, and the state has the option to implement its own measures or to adopt CCAMLR's Conservation Measures (Dodds and Hemmings, 2015). In the case of the HIMI EEZ, Australian management practices are often guided by CCAMLR, and much of the EEZ is spatially protected via the application of Marine Protected Areas, supporting the objectives of CCAMLR (Parks Australia, n.d.). It is unclear whether an ECS jurisdiction has any implication for CCAMLR, however Australian practice in managing the living resources

of the HIMI EEZ implies that Australia will approach the management of the benthic environment of the ECS with the same regard for CCAMLR Conservation Measures as it does for the EEZ (Miller, 2015).

Another significant implication of the KP ECS for living resource management relates to biological prospecting (bioprospecting). Bioprospecting is 'the search for biological compounds of actual or potential value to various applications, in particular commercial applications' (UN Secretary General, 2007, pp46). Bioprospecting remains largely exempt from strict regulation, due to its conduct under the guise of Marine Scientific Research (MSR) and it is subject to the relevant provisions for MSR in the LOSC (Leroux and Mbengue, 2010). Australia now has the capacity and the right to regulate bioprospecting on its continental shelf, should that activity target living resources that occur on the benthos. As organisms of interest and value to bioprospectors tend to occur in extreme environments, such as the polar regions, the deep sea and surrounding hydrothermal vents (Synnes, 2007), the KP will likely be of significant interest to future bioprospecting activities, and Australia now has the right to regulate this activity on the seafloor within its HIMI jurisdiction.

4.4 - Reserving opportunities for future generations

Australia's proclamation of an ECS extending from HIMI represents, in part, the preservation of opportunities for future generations. Whilst the ECS may not present any obvious immediate benefits or uses, apart from those of precluding access to other parties, it possesses potential for future resource utilisation at a time when technological or economic capacities may enable the viable exploitation or utilisation of seabed resources. This is not to suggest that this will be the case, but simply that options are reserved for the future. The Madrid Protocol effectively

prohibits commercial mining activities to states adherent to the Protocol for the time-being. However, as mentioned, political and legal environments can shift, and what seems unimaginable today may not always remain so. The continental shelf appurtenant to HIMI is vast, and its resource capacity is not fully understood. Its most near-term potential likely relates to bioprospecting. Bioprospecting on the HIMI continental shelf may hold significant economic potential for Australia, due to the value of novel genetic resources to the pharmaceutical industry among others, and the exclusive rights that the discovery may hold under patent law (Tvedt, 2011). Australia's right to exclusively access these genetic resources and regulate their harvesting when it occurs on the seabed may be of significant future economic value to Australia. Australia has effectively secured these potential future resource prospects via the HIMI ECS jurisdiction.

4.5 - Enhancing Australia's position and influence within the ATS

An altruistic interpretation may be that Australia sought to enhance the effect of the Madrid Protocol when it submitted data for an ECS off of HIMI. This, in effect, is what has happened in respect of both Australia's *SSLA Proclamation*, and the current Australian national law that prohibits mineral resource activities in the ATA. Whether this was a motivation in Australia's pursuit of the KP ECS remains uncertain. However, it has been well established that Australia is fundamentally committed to the principles of the ATS, including those for environmental protection and resource conservation under the Madrid Protocol and the CAMLR Convention. Through its pursuit of a vast continental shelf jurisdiction off HIMI, Australia has effectively expanded the effect of the mining prohibition, by removing the prospect of mining on the KP to non-parties to the Madrid Protocol. Further, the application of the Madrid Protocol to the seabed is now indirectly enforced bia the KP jurisdiction. In doing so, Australia has enhanced

its influence within the ATS, through gaining further jurisdiction and enhancing its control over some of the provisions for environmental protection under the ATS.

4.6 – Meeting obligations under the Law of the Sea Convention

Annex II, Article 4 of the LOSC stipulates that when a coastal state intends to establish the outer limits of its continental shelf in accordance with *Article 76,* it shall make its submission of scientific and technical data to the CLCS within 10 years of the entry into force of the Convention for that state. Australia was an original signatory to the LOSC and had ratified the Convention upon its entry into force on 16 November 1994 (United Nations, 2018). Accordingly, Australia's 10-year deadline for making a submission to the CLCS occurred on 16 November 2004 (Baird, 2004). Provisions were made after the entry into force of the LOSC that allowed states to submit data after the 10-year deadline, however these provisions were established predominantly for the benefit of developing nations with a lesser capacity to collect data within 10 years (United Nations, 2012b). According to two key informants, Australia took a strict reading of *Annex II, Article 4*, and was determined to meet the black-letter law of the LOSC that stipulated that CLCS submissions shall occur within 10 years of entry into force of the Convention for the state. The function of this deadline was to allow the International Seabed Authority to define the Area, which pertains to the seabed and subsoil beyond the limits of national jurisdiction. Subsequently, the coastal state is required to define its limits of national jurisdiction in a timely manner. Australia was obliged and compelled under the LOSC to submit its data to the for its entire potential continental shelf jurisdiction within the 10-year period, and foregoing this duty in Australia's opinion, would represent forfeiting its right to have data for an ECS assessed in the future.

5. - Implications for Antarctic governance

As a consequence of the CLCS Recommendations to Australia in 2008 and Australia's *SSLA Proclamation* in 2012, undisputed state sovereign rights now exist in areas south of 60 degrees South Latitude, which represents one of the most significant geopolitical developments since the entry into force of the Antarctic Treaty (Hemmings and Stephens, 2009; Jabour, 2009). Remarkably, this has garnered little international attention, despite both the realised and potential implications of this geopolitical event (Hemmings and Stephens, 2009).

In effect, Australia's actions in regard to its continental shelf claims in the ATA have meant that the once relatively distinct and separate governance regime for Antarctica is now firmly muddled with the geopolitical provisions of the LOSC for maritime space (Hemmings and Stephens, 2009). The arrival of such a jurisdiction has meant that the previously clear distinction between the ATS and the LOSC can no longer be maintained, due to the penetration of confirmed continental shelf jurisdictions into the ATA (Hemmings and Stephens, 2009). This means that what happens in the ATA inside of these jurisdictions is now subject to the relevant provisions of the LOSC for maritime zones, equally to those of the ATS. The actions of the CLCS towards Australia's 2004 submission make it clear that sovereign rights to resources within the ATA are permitted in accordance with the CLCS Rules of Procedure, and since the CLCS is not part of the ATS construct, it cannot consider any particular ramifications for the Antarctic region in its decision making process (Hemmings and Stephens, 2009).

However, the whilst the arrival of exclusive rights to resources represents an unforeseen complication to the ATS, Australia has set a precedent and example for how to effectively

manage this regime overlap, without provoking unnecessary disruption within the ATS, nor having to undermine national territorial interests. The Australian approach was delicate, balanced, skillful and ultimately, a highly effective approach to countering disruption within the ATS, whilst upholding Australia's national interests. Whilst the KP continental shelf jurisdiction brings exclusive rights to resources of the seabed inside the ATA, these exclusive rights have been utilised to preclude access to those resources for the foreseeable future. In doing so, Australia set a valuable and important precedent for other countries to follow in a uniques situation where national interests meet shared responsibility in the Antarctic, and the possibility of disruption has been effectively mitigated through skilful and strategic diplomacy.

6. Conclusion

Australia's actions in claiming an extended continental shelf on the KP reflect a number of key strategic interests. The first of these corresponds with Australia's Antarctic and sub-Anatrctic territorial interests. Through its submission to the CLCS and its undisputed proclamation of exclusive rights over the KP ECS jurisdiction, Australia has effectively demonstrated and reinforced its sovereignty over HIMI. Secondly, Australia has sought to enhance environmental protection on the KP, via the exclusion or regulation of access to the resources of the seabed and subsoil. The third strategic interest relates to that of living resource harvesting. Whilst the continental shelf jurisdiction does not have any implication for the water column above, it does present Australia the potential capacity to regulate activities relating to living resource harvesting on the seafloor, such as bioprospecting. The fourth interest represents reserving opportunities for future generations. The resource capacity of the KP is not yet fully

understood, and failure to proclaim a continental shelf would have discarded any potential future prospects arising from the jurisdiction. The fifth interest relates to enhancing Australia's influence within the ATS. Australia is committed to principles of the ATS and it seeks to influence outcomes in the ATS. Jurisdictional gains on the KP enhance Australia's capacity to regulate activities in the ATA. Sixth, Australia was simply meeting its strict interpretation of both *Article 76* and *Annex II, Article 4* of the LOSC. Overall, both the LOSC and Antarctic Treaty support Australia's interests in the Antarctic region.

The Antarctic Treaty and the collection of legal instruments that comprise the ATS provide a comprehensive governance regime for the Antarctic and Southern Ocean and have established a discernible set of norms and values for the Antarctic region. Legal developments have seen the management of existent or pre-empted issues, the most recent of which represents enhanced environmental protection and a comprehensive mining prohibition under the Madrid Protocol. On the contrary, the entry into force of the LOSC in 1994 has codified rights and rules that govern the world's oceans, inclusive of the Southern Ocean. The LOSC's state-centric provisions for exclusive rights and access to resources present potential challenges to issues that lie at the core of the Antarctic Treaty and the ATS, such as the mining prohibition and the settlement of territorial disputes. However, whilst the two regimes conflict in nature, there remains potential for them to exist in harmony, and this duty is strongly dependent on the conduct and ambitions of claimant states to Antarctic and sub-Antarctic territories. Australia, with its extensive Antarctic and sub-Antarctic continental shelf claims, has actively tested this regime nexus, and has sought to strategically balance its interests, via the pursuit of maritime rights under the LOSC, and the enhancement of the principles of the ATS, particularly those of the Madrid Protocol.

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Reference List

Agreement on Marine Delimitation between the Government of Australia and the Government of the French Republic (1982), Online. Available at: https://www.marineregions.org/documents/volume-1329-I-22302-English.pdf [Accessed 29 July 2020].

Alcock, M.B., French, C.J., Hatfield, A., 2010. *Australia's Maritime Jurisdiction around Heard Island and McDonald Islands – Mercator projection*. Geoscience Australia, Canberra. Online. Available at: http://pid.geoscience.gov.au/dataset/ga/69749 [Accessed 1 May 2020].

Antarctic Treaty (Environment Protection) Act 1980, Online. Available at: https://www.legislation.gov.au/Details/C2017C00324 [Accessed 20 July 2020].

The Antarctic Treaty, Opened for signature 1 December 1959, Entered into Force 23 June 1961. Available at: https://www.ats.aq/e/antarctictreaty.html [Accessed 13 May 2020].

Antarctic Treaty Consultative Meeting XXXIX (ATCM XXXIX), 2016. *Santiago Declaration on the Twenty Fifth Anniversary of the signing of the Protocol on Environmental Protection to the Antarctic Treaty*, Online. Available at: https://documents.ats.aq/ATCM39/ad/ATCM39_ad003_e.pdf [Accessed 3 November 2020].

Baird, Ruth. 2004. Can Australia assert an Extended Continental Shelf off the Australian Antarctic Territory consistent with the Law of the Sea and within the constraints of the Antarctic Treaty?, *Maritime Studies*, 138, 1-19, DOI: 10.1080/07266472.2004.10878754

Blay, S.K., 1992. New trends in the protection of the Antarctic environment: the 1991 Madrid Protocol. *The American Journal of International Law*, *86*(2), pp.377-399.

Blay, S.K. and Tsamenyi, B.M., 1990. Australia and the Convention for the Regulation of Antarctic Mineral Resource Activities (CRAMRA). *Polar Record*, *26*(158), pp.195-202.

Bray, D., 2016. The geopolitics of Antarctic governance: sovereignty and strategic denial in Australia's Antarctic policy. *Australian Journal of International Affairs*, *70*(3), 256-274.

Bulkeley, R., 2010. The political origins of the Antarctic Treaty. *The Polar Record*, *46*(1), 9.
Coburn, S., 2017. Eyeing 2048: Antarctic Treaty System's Mining Ban. *Columbia Journal of Environmental Law*, *42*(2), pp.1-6.

Commonwealth of Australia, 2004. *Continental Shelf Submission of Australia – Executive Summary*, Online. Available at: https://www.un.org/Depts/los/clcs_new/submissions_files/aus04/Documents/aus_doc_es_web_delivery.pdf [Accessed 15 June 2020].

Cuyvers, L., Berry, W., Gjerde, K., Thiele, T. and Wilhem, C., 2018. *Deep Seabed Mining, a Rising Environmental Challenge*. IUCN.

Dodds, K.2010. Governing Antarctica: Contemporary Challenges and the Enduring Legacy of the 1959 Antarctic Treaty, Global Policy, 1, 1: 108-115. doi: 10.1111/j.1758-5899.2009.00006x

Dodds, K. and Hemmings, A.D., 2009. Frontier vigilantism? Australia and contemporary representations of Australian Antarctic Territory. *Australian Journal of Politics & History*, *55*(4), pp.513-529.

Dodds, K. and Hemmings, A.D., 2015. Polar oceans: sovereignty and the contestation of territorial and resource rights. *Routledge Handbook of Ocean Resources and Management, London: Routledge*, pp.576-591.

Geoscience Australia, 2009. Setting Australia's Limits, Online, Available at: http://www.ga.gov.au/ausgeonews/ausgeonews200903/limits.jsp [Accessed 6 July 2020].

Geoscience Australia, 2020. Kerguelen Plateau, Online. Available at: https://www.ga.gov.au/scientific-topics/energy/province-sedimentary-basin-geology/petroleum/offshore-southern-australia/kerguelen-plateau [Accessed 18 July 2020].

Geoscience Australia, 2014. *Australia's future activities and responsibilities in the Southern Ocean and Antarctic waters. (Senate Inquiry)*, Online. Available at: https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Foreign_Affairs_Defence_and_Trade/Southern_Ocean_and_Antarctic_waters/Submissions [Accessed 2 August 2020].

Gilbert, N. and Hemmings, A.D., 2015. Antarctic mythbusting. *Antarctica*, *33*(3), pp.29-30

Goldie, L.F.E., 1954. Australia's Continental Shelf: Legislation and Proclamations: The Geography of the Continental Shelf. *International & Comparative Law Quarterly*, *3*(4), pp.535-575.

Haward, M., 2009. Chapter XI. The Law Of The Sea Convention And The Antarctic Treaty System: Constraints Or Complementarity?. In *Maritime Boundary Disputes, Settlement Processes, and the Law of the Sea* (pp. 231-251). Brill Nijhoff.

Haward, M. 'Australia and the Antarctic Treaty' - 50 Years On: Invited Reflections on the Antarctic Treaty *Polar Record* 46 (236) (2010): 11-14. doi:10.1017/S0032247409990246

Haward, M. and Cooper, N., 2014. Australian interests, bifocalism, bipartisanship, and the Antarctic Treaty System. *The Polar Record*, *50*(1), p.60.

Haward, M. and Griffiths, T., 2011. *Australia and the Antarctic Treaty system: 50 years of influence*. First Edition. University of New South Wales Press. Sydney.

Haward, M., Rothwell, D.R., Jabour, J., Hall, R., Kellow, A., Kriwoken, L., Lugten, G. and Hemmings, A., 2006. Australia's Antarctic Agenda. *Australian Journal of International Affairs*, *60*(3), pp.439-456.

Hemmings, A.D. and Stephens, T., 2009. Reconciling Regional and Global Dispensations: The Implications of Subantarctic Extended Continental Shelf Penetration of the Antarctic Treaty Area. *New Zealand Yearbook of International Law*.

Hodgson-Johnston, I., 2015. Australian politics and Antarctic sovereignty: themes, protagonists and antagonists. *Australian Journal of Maritime & Ocean Affairs*, *7*(3), pp.183-202

Homan, A., 2006. Maritime Zones in Antarctica. *Austl. & NZ Mar. LJ*, *20*, p.69.

International Tribunal for the Law of the Sea (ITLOS), 2004. Online. Available at: https://www.itlos.org/fileadmin/itlos/documents/cases/case_no_11/11_judgment_231202_dec_Vukas_en.pdf [Accessed 7 August 2020].

Jabour, J., 2009. The Australian continental shelf: Has Australia's high-latitude diplomacy paid off?'. *Marine Policy*, *33*(2), pp.429-431.

Jouffray, J. B., Blasiak, R., Norström, A. V., Österblom, H., & Nyström, M., 2020. The Blue Acceleration: The Trajectory of Human Expansion into the Ocean. *One Earth*, *2*(1), 43-54.

Kaye, S., 2014. Australian practice in respect of the continental shelf beyond 200 nautical miles. *Marine Policy*, *51*, pp.339-346.

Kriwoken, L.K., Jabour, J. and Hemmings, A.D. eds., 2007. *Looking south: Australia's Antarctic agenda*. Federation Press.

Leroux, N. and Mbengue, M.M., 2010. Deep-Sea marine bioprospecting under UNCLOS and the CBD. In *6th IHO-IAG ABLOS Conference*.

Marine National Facility (CSIRO), 2019. RV Investigator Voyage Plan (IN2020_V01), Online. Available at: https://www.marine.csiro.au/data/reporting/get_file.cfm?eov_pub_id=1171 [Accessed 30 March 2020].

Miller, D.G., 2015. CCAMLR Conservation Measures: How the Chairman's Statement Works. *The Yearbook of Polar Law Online*, *7*(1), pp.501-530

Miller, K.A., Thompson, K.F., Johnston, P. and Santillo, D., 2018. An overview of seabed mining including the current state of development, environmental impacts, and knowledge gaps. *Frontiers in Marine Science*, *4*, p.418.

Mossop, J., 2018. The relationship between the continental shelf regime and a new international instrument for protecting marine biodiversity in areas beyond national jurisdiction. *ICES Journal of Marine Science*, *75*(1), pp.444-450.

Mossop, J., 2007. Protecting Marine Biodiversity on the Continental Shelf beyond 200 nautical miles. *Ocean Development & International Law*, *38*(3), pp.283-304.

Myhre, J.D., 2019. *The Antarctic Treaty System: politics, law, and diplomacy*. Routledge.

Parks Australia, n.d. *Regulation impact statement: Heard Island and McDonald Islands marine reserve and conservation zone.* Online. Available at: https://parksaustralia.gov.au/marine/pub/scientific-publications/archive/heard-ris.pdf [Accessed 12 September 2020].

Peeters, L., 2004. Square Peg, Round Hole Jurisdiction over Minerals Mining Offshore Antarctica. *Macquarie J. Int'l & Comp. Envtl. L.*, *1*, p.217.

Press, A.T., 2015. The Antarctic treaty system: Future mining faces many mathematical challenges. *The Yearbook of Polar Law Online*, *7*(1), pp.623-631.

Rothwell, D.R., 1994. A maritime analysis of conflicting international law regimes in Antarctica and the Southern Ocean. *The Australian Yearbook of International Law Online*, *15*(1), pp.155-181

Schofield, C. 2008. Australia's Final Frontiers?: Developments in the Delimitation of Australia's International Maritime Boundaries, *Maritime Studies*, 158 2-21. https://doi.org/10.1080/07266472.2008.10878876

Scott, S.V., 2021. The irrelevance of non-recognition to Australia's Antarctic Territory Title. *International & Comparative Law Quarterly*, *70*(2), pp.491-503.

Serdy, A., 2005. Towards certainty of seabed jurisdiction beyond 200 nautical miles from the territorial sea baseline: Australia's submission to the Commission on the Limits of the Continental Shelf. *Ocean Development & International Law*, *36*(3), pp.201-217.

Serdy, A., 2009. Some views are more equal than others: submissions to the Commission on the Limits of the Continental Shelf and the strange loss of confidence in Article IV of the Antarctic Treaty. *The Australian Yearbook of International Law Online*, *28*(1), pp.181-195.

Synnes, M., 2007. Bioprospecting of organisms from the deep sea: scientific and environmental aspects. *Clean Technologies and Environmental Policy*, *9*(1), pp.53-59.

Triggs, G., 2011. The Antarctic Treaty System: A model of legal creativity and cooperation. *Science diplomacy: Antarctica, science, and the governance of international spaces*.

Tvedt, M.W., 2011. Patent law and bioprospecting in Antarctica. *Polar Record*, *47*(240), pp.46-55.

United Nations 2004 Commission on the Limits of the Continental Shelf (CLCS) Outer limits of the continental shelf beyond 200 nautical miles from the baselines: Submissions to the Commission: Submission by Australia https://www.un.org/depts/los/clcs_new/submissions_files/submission_aus.htm

United Nations (Oceans and Law of the Sea), 2008, Summary of the recommendations of the Commission on the Limits of the Continental Shelf (CLCS) in regard to the submission made by Australia on 15 November 2004 – Recommendations adopted by CLCS on 9 April 2008, , Online, Viewed 24 March 2020,

https://www.un.org/Depts/los/clcs_new/submissions_files/aus04/aus_summary_of_recommendations.pdf

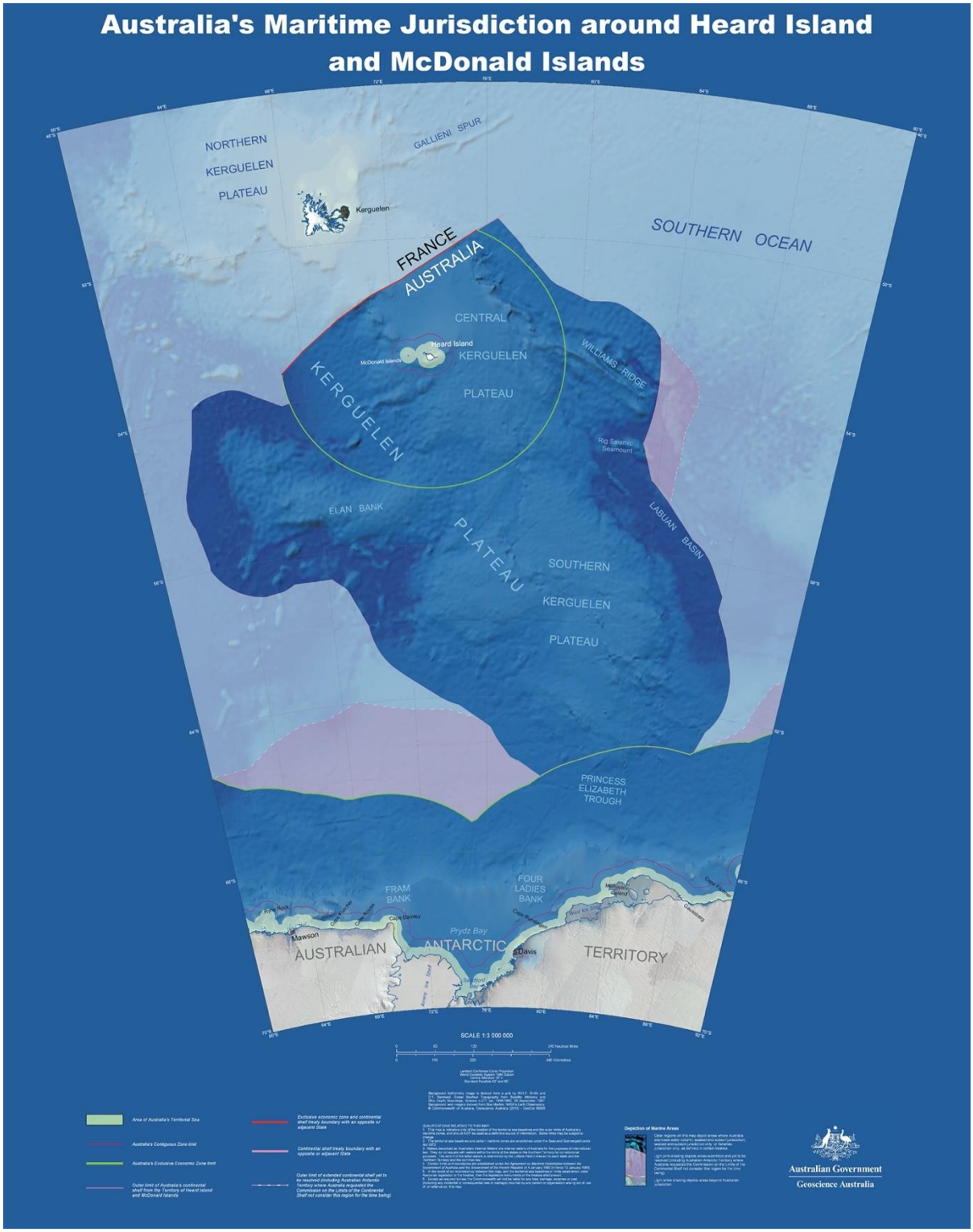
United Nations, 2012. *Commission on the Limits of the Continental Shelf (CLCS): Outer limits of the continental shelf beyond 200 nautical miles from the baselines: Submissions to the Commission: Australia*, Online. Available at: https://www.un.org/Depts/los/clcs_new/submissions_files/submission_aus.htm [Accessed 12 May 2020].

United Naitons, 2012b, *Issues with respect to Article 4 of Annex II to the Convention (ten-year time limit for submissions)*, Online, Available at: https://www.un.org/Depts/los/clcs_new/issues_ten_years.htm [Accessed 10 September 2020].

United Nations, 2018. United Nations Convention on the Law of the Sea of 10 December 1982 – Overview and Full Text, Online, Viewed 15 August 2020, Available at: https://www.un.org/Depts/los/convention_agreements/convention_overview_convention.htm [Accessed 4 July 2020].

United Nations Convention on the Law of the Sea (LOSC), Opened for signature 10 December 1982, Entered into force 16 November 1994, Available at: https://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf [Accessed 12 May 2020].

Appendices



Appendix 1 **–** Australia's maritime jurisdiction off Heard Island and McDonald Islands, including a vast Extended Continental Shelf jurisdiction on the Kerguelen Plateau. Note the area of the jurisdiction that occurs south of 60 degrees South latitude. Also note the location of unresolved region of Williams Ridge (Alcock, French and Hatfield, 2010). Reproduced with permission.