



Blue crime: Conceptualising transnational organised crime at sea

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ABSTRACT

Transnational organised crime at sea is a growing international concern. However, and despite its importance, the concept remains uncertain and contested. This ambiguity has led to a tendency to focus on individual challenges such as piracy or illegal fishing, rather than convergencies and synergies between and across issues, and has stymied a concerted international policy response. Debate continues over the term itself, what illicit activities it incorporates and excludes, and how these can be meaningfully conceptualised in ways that both recognise the diverse nature of the concept yet also provide a basis for an integrated response to the challenges it presents. In this paper, we address this lacuna by providing a systemic conceptualisation and analysis of transnational organised crime at sea. Our goal is to provide a firm basis for future enquiries on the different types of blue crime, to trace their distinct characteristics and identify how they intersect, and to consider what kinds of synergies can be built to respond to them. In so doing, we organise the nascent academic and policy discourse on blue criminology and maritime security to provide a new framework for navigating this complex issue for practitioners and analysts alike.

1. Introduction

Transnational organised crime at sea has only recently been recognised as a major security issue that requires political attention. Crimes such as maritime piracy, the illicit trafficking of people, narcotics, arms or waste by the sea, and environmental crimes such as illegal fishing or pollution are increasingly important dimensions of ocean governance and the associated maritime security and law enforcement agenda. Such crimes have different expressions across the world's maritime regions and affect human lives, political stability and economic interests in different ways, ranging from their impact on coastal communities to international shipping and even national security.

Maritime crime is receiving increasing attention at the highest levels of international policy making. The UN Security Council held its first ever debate on the issue in February 2019 under the title 'transnational organised crime at sea as a threat to international peace and security' [1]. The discussion revolved around the impact of maritime crime. While representatives agreed on the significance of such crimes for international peace and security, the meeting did not lead to an official statement or formal conclusion. One of the reasons for this absence was the significant confusion that still exists around the meaning, scope and reach of the concept including, what illicit activities it comprises, and

how these can be meaningfully structured in ways that both recognise the diverse nature of maritime crime yet also provide a basis for an integrated response to it.

Against that background, this article conducts a systematic categorization of transnational organised crime at sea or what we describe in the following as 'blue crime'. Developing this categorial system has firstly the objective to enable further enquiries on the different kinds of crime, their cause, motivations and characteristics. Secondly, to pay more attention to how these crimes intersect, and to study how synergies between crime responses can be enabled in order to organise more holistic policies and operations. In so doing, we organise the nascent academic and policy discourse on blue criminology and maritime security to provide a new framework for navigating this complex issue for practitioners and analysts alike. In other words, our objectives are pragmatic; we aim at enabling new dialogues between discussions of particular manifestations of crime, for instance between those concerned about piracy and those about illegal fishing, at highlighting the broader contexts in which these take place, and pointing to areas of intersection and synergy between them.

We start from a discussion of contemporary conceptualisations of transnational organised crime at sea, with a focus on the international legal order, in particular the UN Convention on Transnational Organised

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Crime (UNTOC). We move on to identify three main categories of blue crime, each of which is distinguished by its particular relationship with the sea and the objects of harm that require protection. These include first, crimes against mobility; second, criminal flows; and third, environmental crimes. Crimes in the first category target various forms of circulation on the sea, particularly shipping, supply chains and maritime trade. In the second category, the sea is used as a conduit for criminal activities, in particular smuggling. In the third category, crimes inflict harm on the sea itself and the resources it provides. We discuss each of these categories in detail and document the main criminal activities they comprise. The final section considers intersections between the three blue crimes and reflects on starting points for holistic analyses and integrated responses.

2. The concept and scope of transnational organised crime at sea

In order to classify different expressions of transnational organised crime at sea, a conceptualisation is required that manageably limits the scope of the concept, without however narrowly ‘defining away’ relevant phenomena. Conceptualisations are provided in the international legal regime as well as in the analytical language of criminology. The strength of the legal concepts is that they provide a clearly specified, bounded, and internationally agreed wording for particular phenomena. However, they also risk reducing the discussion to a technical and legalistic debate on whether a particular action or incident satisfies the demands of the definition, rather than opening up an understanding of the problem in the round. Criminological concepts face the problem of diversity: theoretical standpoints produce different definitions and understandings, but often leave open the question of when particular problems should be studied as crimes and when not. Here we suggest a pragmatic approach that starts out from international legal definitions but recognises its limits and complements it with ideas from criminology.

2.1. The UN convention against transnational organized crime

Perhaps the most commonly used definition of transnational organized crime is that of the UN Convention against Transnational Organized Crime (UNTOC). The UNTOC definition has been widely adopted and underpins the work of key international law enforcement organisations, including the UN Office on Drugs and Crime (UNODC) and Interpol, as well as the over 140 states signatory to the convention. Indeed, while national definitions of organised crime may differ in their detail, most comprise some combination of the core elements laid out in the convention [2].

UNTOC identifies an ‘organised criminal group’ as:

... a structured group of three or more persons, existing for a period of time and acting in concert with the aim of committing one or more serious crimes or offences ... in order to obtain, directly or indirectly, a financial or other material benefit.

And that,

‘Serious crime’ shall mean conduct constituting an offence punishable by a maximum deprivation of liberty of at least four years or a more serious penalty.

Moreover, it specifies that:

... an offence is transnational in nature if: (a) It is committed in more than one State; (b) It is committed in one State but a substantial part of its preparation, planning, direction or control takes place in another State; (c) It is committed in one State but involves an organized criminal group that engages in criminal activities in more than one State; or (d) It is committed in one State but has substantial effects in another State.

The UNTOC definition has a number of notable features. First, it suggests that organised crime is: a) structured in some way; i.e. it implies identifiable patterns and processes of behaviour within and between criminal groups; b) enduring, in the sense that these patterns and processes persist (though may also adapt) over time; c) collaborative, in the sense that three or more members of a criminal group act in concert; d) purposive, in that they do so with the specific aim of committing serious crimes; and e) profit seeking in that such crimes are expected to have a financial or material benefit of some sort. It also implies that organised crime is considered to be transnational only if it implicates two states or more.

2.2. Limitations and revisions for the maritime domain

The UNTOC definition has the advantage of providing a clearly specified and commonly agreed baseline from which to approach the phenomena of transnational organised crime. However, it has at least two limitations when applied to the maritime domain.

First, it takes serious crime as a given, in the sense of comprising one or more serious crimes or offences according to currently extant legal frameworks and definitions, and punishable at the threshold specified in Article 2 above. For analytical purposes at least, this requirement is overly restrictive. Notions of serious crime are highly contingent across societies and dependent on appropriate legalisation and criminalisation processes [3–5]. In the maritime domain, a common challenge for law enforcement is that many countries do not have appropriate legislation in place to effectively deal with criminality at sea. Activities which are commonly conceived to be transnational crimes – particularly environmental crimes such as illegal fishing – are often either treated as minor civil offences or are not punishable at all [6]. Such limitations have been recognised in recent maritime capacity building work by international actors, which commonly focus on strengthening the legal capacities of states to deal with such practices according to international standards and conventions [7]. While the victims of such crimes may sometimes be clearly identifiable, they may also result in wider social, economic and environmental harms, the impacts of which are collective, long-term or even non-human in nature.

Second, UNTOCs definition of transnationality is constrained by its focus on the state, and in particular its inclusion of a two-state requirement. Certainly, transnational organised crime at sea often takes place between states. However, it also includes crimes that take place in or between spaces of specific, partial or shared state authority, including areas of port state and flag state jurisdiction, territorial waters, Contiguous Zones (CZs), Exclusive Economic Zones (EEZs), the high seas or international straits, or that are carried out by vessels sailing under multiple, indefinite, or weakly regulated flag state authority [8,9]. Such crimes may include multiple dimensions of transnationality, including globalised activities such as the trafficking of Afghani heroin to Europe and the United States [10,11]; those that take place within a regional domain such as piracy in the Western Indian Ocean [12]; those that are planned in one place but carried out in another such as wildlife crimes [13–15]; those that cross between different zones of maritime jurisdiction such as illegal fishing or narcotics trafficking; or those that entail crossing a border between two neighbouring states such as sugar smuggling between Somalia and Kenya [16]. Most maritime crimes involve land-based elements too, whether for the purposes of criminal finance, the laundering of illicit goods and profits or onward movement through the criminal supply chain.

In practice, notions of crime in the maritime domain are determined through a network of national laws, international conventions, customary international laws, and bilateral or regional agreements between states. Examples include the provisions laid down in the 1982 United Nations Convention on the Law of the Sea (UNCLOS), the Convention for the Suppression of Unlawful Acts Against the Safety of Maritime Navigation and its protocols (SUA), or regional initiatives such as fisheries management organisations or security agreements.

For these reasons, we require a broader and more accommodating conceptualisation of transnational organised crime at sea than that offered by UNTOC. Hereafter, we use the short-hand term ‘blue crime’ to characterise such activities. We conceptualise them as follows:

Serious organised crimes or offences that take place transnationally, on, in or across the maritime domain and cause or have the potential to inflict significant harms.

This conceptualisation centres the sea rather than the state in our analysis, and, following UNTOC, we expect it to include serious crimes and offences that are structured, enduring, collaborative, purposive and profit-seeking in nature. However, it also recognises the contested, diverse, adaptive and sometimes legally ambiguous nature of such activities, and accepts that what comprises transnational organised crime at sea in any given context is likely to be constituted as much by international convention and practice as it is necessarily by legal definition.

2.3. Limits of the scope

Not all activities which may count as crimes at sea are included in this conceptualisation. Some criminal activities at sea take place for ad hoc or even banal reasons, including ignorance (of environmental regulations for example), opportunism, or habit, such as illegal fishing in maritime protected areas by small scale enterprises [17].

It is also notable that in retaining the profit-seeking element of the UNTOC definition, we do not conceptualise terrorism or other forms extremist violence as blue crimes. While core maritime security actors work jointly on blue crime and terrorism – such as the UNODC for example which includes maritime terrorism in its Maritime Crime Manual, or the IMO which addresses terrorism for instance through its port security measures – the two phenomena have quite distinct characteristics. Chalk ([18]: 31-2) for example argues in relation to the piracy terrorism-nexus that the former ...

... is predicated on financial gain while terrorism is motivated by political goals beyond the immediate act of attacking a maritime target; the former will eschew attention and aim to sustain their trade while the latter will court publicity and inflict as much damage as possible.

Indeed, not only do perpetrators operate according to different logics, rationalities and goals, but also legitimate responses to extremist violence differ radically and are subject to distinct legal regimes. In this respect, we follow both Chalk [18] and Young and Valencia [19] in arguing that crime and terrorism should be considered as analytically separate categories. This is not to suggest that there is no relationship between the two (see [10] for example), nor that these relations should be neglected. Indeed, and as we go on to discuss below, blue crimes have important intersections not only with each other, but with wider security challenges including both terrorism but also inter-state disputes and geopolitical contestations.

3. Categorizing blue crimes

The above sections have set out the initial scope of blue crimes. In the following we further substantiate the concept by demonstrating what it entails. To order the several manifestations of blue crime, we offer a classification that centres on the objects of harm that require protection. We identify three core categories of blue crime: crimes against mobility, criminal flows, and environmental crimes. Each crime entails a different relationship with the maritime space, and produces differing pathologies of effect. Each category may incorporate concepts and categories that are themselves diverse and contested. As in any other categorial system, there are important crossovers and interactions between all of these categories, an issue that we return to towards the end of our discussion. Table 1 provides an overview of each category.

Crimes against mobility target movements on the sea. The primary target sites of harm are those of maritime transport, that is the ship and the port, with the harmed objects not only comprising of ships, commodities and their crew but also wider transport infrastructures and supply chains. Piracy is a core crime in this category. Criminal flows differ. Here criminal activities take place across the sea. The sea is a space of opportunity for perpetrators while the harm is caused on land. It is societies and communities that are harmed by such crimes. Smuggling of all kinds of sort is the primary crime in this category. Environmental crimes take place in the sea and target the marine environment itself, including natural resources or installations and objects in the sea. Illegal resource exploitation as well as crimes against maritime infrastructures are the core activities included in this category. Each of the categories and the crimes they entail are further specified in the following three sections.

4. Crimes against mobility

Crimes against mobility target the movement of goods and international shipping. Crimes take place on the sea, or in vicinity of the sea, for instance in port facilities. The main forms of crime included in this category are acts of piracy in their various expressions.

4.1. Piracies

The rise of modern piracy from the 1980s, particularly in the Straits of Malacca, off the coast of Somalia, the Gulf of Guinea and the Sulu and Celeb Seas, brought crimes against shipping to international attention. Piracy itself is defined in Article 101 of the United Nations Convention on the Law of the Sea as a specific crime comprising:

Any illegal acts of violence or detention, or any act of depredation, committed for private ends by the crew or the passengers of a private ship or a private aircraft [or the associated participation in such activities], and directed on the high seas [or in a place outside the jurisdiction of a state] against another ship or aircraft [20].

Piracy in the UNCLOS definition is distinguished by its specificity. It takes place either on the high seas, or ‘a place outside the jurisdiction of

Table 1
Three blue crimes.

	Crimes against mobility	Criminal flows	Environmental crimes
Relation to the sea	On the sea	Across the sea	In the sea
Ideal-type of object	‘ships’ & ‘ports’	‘societies’ & ‘communities’	‘nature’ & ‘installations’
Subcategories	<ul style="list-style-type: none"> • Kidnap and ransom • Ship/cargo seizure • Robbery and theft • Crimes in and against ports • Stowaways • Cyber crimes 	<ul style="list-style-type: none"> • People Smuggling • Human Trafficking • Small arms and WMD • Narcotics • Illicit goods • Counterfeits • Wildlife • Waste 	<ul style="list-style-type: none"> • Fisheries crimes • Pollution • Illegal mining/resource extraction • Crimes against critical infrastructure • Crimes against cultural heritage
Forms of harm and victims	<ul style="list-style-type: none"> • Maritime trade • Supply chains • Seafarers • Coastal economies • Port facilities 	<ul style="list-style-type: none"> • Formal economy • Public health • Environmental destruction • Trafficked persons • National security 	<ul style="list-style-type: none"> • Environmental destruction • Biodiversity • Legitimate coastal economy • Coastal livelihoods • Food security
Cross-cutting/facilitating activities	Bribery, blackmail and corruption; slavery, forced and child labour; insurance, cargo and document fraud, money laundering, obstruction of justice, other forms of support for criminal groups.		

any state', is subject to the provisions outlined in UNCLOS rather than the national laws of any individual state and entails actions by one ship or aircraft against another. Accordingly, where such crimes take place within the internal waters or territorial sea of a state, they are not legally classified as piracy under UNCLOS, with an expectation that they will be dealt with according to the laws of the state concerned.

As Kao [21] notes, the UNCLOS definition has been criticised for its inflexibility and inability to capture many manifestations of crime that are described in everyday language as modern maritime piracy. Piracy itself is a diverse phenomenon, comprising differing and often regionally specific business models, which may be subject to varying degrees of sophistication and organisation. Many of the incidents described as piracy take place in territorial waters. Piracy in the Gulf of Guinea generally targets the regional oil economy and frequently takes place in the territorial waters of states such as Nigeria [22]. In the Straits of Malacca and South East Asia, piracy generally comprises the theft of cargos, or of money and valuables from ship crews, or the kidnap and ransom of crews. As in the Gulf of Guinea, the majority of such incidents are in territorial waters [23].

Indeed, and in contrast to UNCLOS, other bodies rely on wider conceptualisations. The industry recommendations for deterring piracy for example, employ an expansive definition comprising 'the use of violence against the ship, its crew, its crew or cargo, or any attempt to use violence' [or any unauthorised attempt to board a ship] [24]. For its part, the SUA Convention does not use the term 'piracy' but mandates against all unlawful acts against the safety of maritime navigation regardless of where they take place [25]. Such broad definitions are able to capture the diversity of pirate activities, are flexible enough to accommodate changes in pirate tactics over time and can encourage responses and countermeasures to similar phenomena based on general principles rather than definitional diktat [21].

Piracy is also a value-laden term, the pejorative nature which can obscure the moral complexities underpinning some pirate activities. The hijack of the Turkish tanker *El Hiblu 1* by refugees and migrants alarmed at being returned to Libya after having been rescued at sea in March 2019 [26] illustrates this. It shows how such activities can sometimes take place for reasons that are not essentially criminal in nature, and the need for appropriate, circumstance-driven law enforcement responses rather than blanket sanctions.

To recognise the contested and value-laden nature of the term piracy, and the various kinds of piracies that it incorporates, both within and beyond the UNCLOS definition, the term 'piracies' seems appropriate to refer to all forms violent of appropriation at sea by armed actors or groups. In consequence, we follow the approach of Justin Hastings [22]; who focuses on specific objectives of pirate activity, including kidnap and ransom, the seizure of a ship and its cargo for resale, or robbery of non-cargo items from the ship and crew.

Piracies have negative impacts at multiple levels. They can threaten global trade routes, supply chains and shipping interests, they can damage local maritime economies, and they impose significant hardship and suffering – as well as a risk to life – on the seafaring professions. There is also evidence that the influx of profits from piracy to the states and regions where they are based can have negative long-term economic effects, similar to the well-documented 'Dutch disease' problem sometimes experienced by resource-rich countries [27].

4.2. Other expressions

Not all theft at sea is a consequence of piracies, or necessarily involves crimes against ships. Port facilities also provide various opportunities for theft and associated criminal activities [28]. Cybercrime – particularly data breaches through cyberattack or ransomware – is an emergent and increasingly significant criminal activity in this category, though one that has proven difficult to measure due to concerns over reputational damage amongst those targeted [29]. Finally, stowaways are also part of this category. These often are highly organised and cause

significant financial cost to the shipping industry through disembarkation-repatriation requirements and potential fines to ship owners [30]: 8).

5. Criminal flows

A second major category of maritime crime concerns those activities in which the sea is used primarily as a conduit for criminal enterprise, rather than the main site of that enterprise itself. Crimes in this category are associated with criminal flows or what are sometimes called 'transit crimes' [31]: that is, they concern the movement of illicit commodities or the illegal movement of people from their source location to their markets or destinations, while avoiding detection, entry controls, customs inspections, taxation or other forms of regulation.

The seas are conducive to such movements because they connect different regions of the world without the intercession of hard borders, customs posts, checkpoints and so on. Their vast size means that they are difficult to surveil effectively, particularly when illicit flows can be hidden within or alongside legitimate maritime traffic such as fishing boats or cargo ships. The high seas are also subject to looser and more ambiguous systems of legal regulation than many territories under the control of individual states, lowering the risk of capture and prosecution for trafficking activities.

5.1. Types of criminal flows

Most global smuggling and trafficking movements are, in one way, or the other linked to the maritime space. In consequence, various kinds of criminal flows at sea can be distinguished according to what is moved. Human trafficking and smuggling are significant issues in many maritime regions, with migrants often forced to travel in unsafe craft and dangerous conditions. Such activities are often facilitated by sophisticated criminal networks [32]. People can be smuggled to facilitate voluntary migration for economic reasons or because of insecurity at home, or involuntarily trafficked for the purposes of forced labour for example. Human trafficking and smuggling can put the lives and welfare of people at risk, and lead to exploitation, extortion and slavery [33]. The trafficking of narcotics by sea, whether in container ships or hidden in fishing boats or smaller trade vessels, is a well-established criminal practice. The drugs trade can threaten public health in coastal communities and beyond, leading to increased rates of addiction, HIV/AIDS infection, and domestic violence [34]. Narcotics trafficked by sea include heroin, cocaine, cannabis and methamphetamine [35].

Similarly, the smuggling of weapons small arms and light weapons (SALW), including to and from regions of conflict, often relies on the sea [36–39]. Concerns also persist about the trafficking of weapons of mass destruction (WMD) or their precursors [40]. Trafficking in SALW can destabilise regions and sustain insurgencies and terrorist groups. The transfer of WMD materials or their precursors may pose threats to national and global security. A series of other illicit cargos may be trafficked at sea, including controlled or prohibited goods such as counterfeit products, antiquities, wildlife, hardwood timber or waste [15,41–45]. The trafficking in illicit goods can undermine the conservation efforts, facilitate habitat destruction and threaten biodiversity [46].

Finally, licit goods such as gold, charcoal, fuel, cigarettes or sugar may be smuggled to avoid taxation, customs duties or international sanctions [47–49]. The avoidance of tax and customs duties decreases the revenue available to national economies. It is however important to note that the illicit trade in licit goods does not always have a negative impact. It may support barter economies in poverty-stricken regions and provide access to necessities for poor and marginalised communities [23,48].

6. Environmental crimes

The category of environmental crimes refers to activities that cause significant harm to the marine environment, where humans are often only second order victims. Such crimes take place, *in* the sea, in the sense of the exploitation or degradation of the resources, fauna, cultural heritage, and infrastructures located in the oceans themselves. They are, as such, crimes of the anthropocene, in the sense that they take place in the context of human activities that engage and interact with the environment of the oceans themselves [50]. This implies a broader understanding of ‘the environment’, recognising that in the anthropocene it is difficult to divide nature and culture. Human-made artefacts, ship wrecks, cables, wind farms or oil platforms are entangled with ‘nature’ to a degree that it makes it difficult to separate them out.

6.1. Fisheries crimes

Perhaps the most prevalent environmental crime at sea is illegal fishing. According to the Food and Agriculture Organisation (FAO), illegal fishing is that conducted ‘by national or foreign vessels in waters under the jurisdiction of a state, without the permission of that state, or in contravention of its laws and regulations.’ [51]. It also comprises vessels fishing in contravention of other national or international laws or obligations, including on the high seas. Examples include landing protected species or using banned techniques such as cyanide or dynamite fishing. Illegal fishing is associated with a series of wider crimes connected to the fisheries sector. These include activities such as document forgery or tax avoidance, or the exploitation of crew aboard ship, including forced labour and slavery [52]. Taken together, the range of serious offences that take place along the value chain of the fisheries sector are collectively referred to as ‘fisheries crimes’ [53].

It has been estimated that as much as USD 23.5 billion is lost to illegal fishing each year, while wider crimes associated with the fisheries sector cause even more financial loss [53]. Illegal fishing sometimes takes place at a relatively low level amongst artisanal fishers who may sometimes flout regulation or fish in restricted areas on an ad hoc, opportunistic or habitual basis [54]. However, it is often a highly sophisticated and organised activity, comprising transnational networks of criminals, working through shell companies and operating vessels under multiple different flags of convenience [53]. Illegal fishing can be linked to other forms of transnational organised crime at sea too. Fishing vessels can be used for various forms of trafficking – such as arms or narcotics – alongside their illegal fishing activities [17], or use forced labour and crews operating in conditions of effective slavery [55]. Indeed, the fishing industry can be seen as one of the key nodes through which various forms of transnational organised crime at sea interconnect.

6.2. Other environmental crimes

A series of other environmental crimes are also important and take place with varying degrees of organisation. They mainly comprise violations of environmental regulation for financial gain and include practices such as deliberate pollution and waste dumping at sea, the discharge of ballast water from ships and unregulated breakage activities [56–61], or the illicit extraction of natural resources at sea [62].

The maritime environment is home to a range of offshore installations and critical infrastructures such as pipelines and submarine data cables. These are vulnerable to criminal activities, including damage caused by negligence, or deliberate attacks with criminal intent [93]; [63]. While such activities are usually not included in understandings of environmental crime, given the anthropocentric character of the contemporary environment, it is useful to consider them in this category. For similar reasons, we also include crimes against cultural heritage here. These may include treasure hunting, the pillaging of antiquities or the desecration of war graves, for example by plundering sunken warships for scrap. Such crimes may impact the environment –

for example by causing the release of chemicals or fuels into the water or disturbing sites that have become new sources of biodiversity [64].

Environmental crimes at sea have numerous pathological impacts. Illegal fishing devastates fish stocks and threaten endangered species. Destructive fishing techniques damage coral reefs and other marine habit. Polluting activities such as waste dumping can have disastrous impact on biodiversity and marine health. Such actions can make fishing grounds less productive and profitable for legitimate fishers, and, in so doing, undermine livelihoods and food security in vulnerable coastal regions [65]. Such damage may have considerable destructive effects not only on marine life, but also regional economies and coastal communities.

7. Cross-cutting and related issues

Each of the three categories of blue crime are distinct and have different local manifestations. Yet, they share features and intersect in important ways. Blue crimes form an inter-linked complex comprising of multiple interactions, feedback loops and wider effects [66]. They are not always well understood if conceived as discretely separated phenomena. In this section we discuss the thematic issues that are shared across some or all forms of blue crimes.

7.1. Intersections between blue crimes

Blue crimes intersect in three ways: the skills and capacities required to carry them out, the spaces in which they take place, and the facilitating crimes related to them.

Firstly, in many cases the organisational, material and skills demands of one form of crime are equally applicable to another [67]. Often, these are as straightforward as having access to a boat and crew and the required seamanship. Such skills are in good supply in coastal regions the world over and are also often indistinguishable from those of artisanal fishing or leisure boating more generally. Violent crimes require personnel with the ability and willingness to use violence and perhaps wield a gun or light weapon; again, skills are generally widely available in societies that are in or emerging from conflict or have strong indigenous gun cultures. An illicit fishing vessel for example, can equally engage in legitimate fishing, fishery crimes, trafficking of various sorts, or even piracies [68,69]. These synergies of capacity can make it difficult for maritime law enforcement to distinguish between legitimate users of the sea and those engaged in maritime crime.

A second area of convergence is spatial. Transnational blue crimes often take place within or across the same geographic spaces. This may be because certain routes are of critical geo-economic importance – such as the Bab el Mandeb between Eritrea, Djibouti and Somalia and Yemen for example – and so attract a disproportionate amount of maritime traffic, which can either be targeted by criminals or used to conduct or conceal various forms of maritime crime [70,71]. These spaces can act as chokepoints for maritime traffic, forcing ships to reduce speed to ensure safe passage and, at least in the case of piracy, heightening their vulnerability to interception or attack [18]: 11). Criminals also use established informal trading routes for the movement of different kind of illicit commodities, whether those be arms, people or narcotics. The Dhow trade network of the Western Indian Ocean for instance has been frequently linked to smuggling activities [72,73]. Maritime crimes can also bunch around specific regions of geographic instability, such as Somalia or Yemen for example, where state law enforcement or maritime surveillance capacities may be either weak or non-existent. Ports are also a vital nodal point for various blue crimes, in particular for criminal flows as well as environmental crimes. Illicit goods need to be loaded and unloaded in ports. Stowaways enter vessels at ports. Illegally sourced fish and seafood needs to be unloaded in port [74,75].

Thirdly, convergence can take round across shared forms of criminal enterprise or business practices that act as facilitating crimes [76]. These include access to criminal markets, finance and money laundering

channels, as well as common practices such as fraud or forgery, the use of forced labour or corrupt payments to officials, private employees and gatekeepers of various sorts. Criminals may also engage in the legitimate economy in various ways. For example, UNODC notes in relation to the fishing sector that:

On the one hand, major transnational organized criminal groups may be directly involved in fisheries crime by engaging in large-scale, organized illegal fishing activities and or widespread document fraud, tax fraud, corruption and money laundering. On the other hand, seemingly compliant transnational fishing operators may engage in parallel criminal activities, usually obscured by multi-level business operations, such as laundering illegally caught fish by mixing them with legally sourced products and selling them through legitimate trading relationships [77].

These synergies mean that it can be relatively straightforward for those engaged in maritime crimes to shift the emphasis of their activities from one crime to another, or from licit to illicit activities, according to circumstance. Capacities, networks and business models can be easily transferable, giving maritime crime an inherent adaptability that can frustrate law enforcement efforts and lead to unexpected consequences elsewhere.

7.2. Adaptability

Blue crime is dynamic and adaptable. Criminals operating in one form of crime may also engage in others at the same time or shift from one type to another [78]: 53). Three motivations for change and adaptation in maritime crime can be identified: countermeasure driven motivations, opportunity driven motivations, and those derived from unintended consequences.

Criminologists have long argued that criminal business models are driven at least in part by calculations of risk and reward [79–81]. When the risks of carrying out a particular form of crime in a particular space become too high – whether as consequence of law enforcement activity, defensive measures, criminal justice procedures or other forms of deterrence – criminals are likely to shift to crimes where such countermeasures are less strong and the risk-reward balances more favourable. This phenomenon has been described in criminology as displacement [82].

Counter-piracy measures off the Somali coast provide a useful illustration: Measures such as naval patrolling, the use of defensive architecture and armed guards on ships, and the development of an effective court and prison system for the prosecution and incarceration of pirate suspects have been key contributing factors to the decline of piracy since 2012 [83]. At the same time, it is widely believed that the main pirate organisational structures remain intact and their leaders remain at large [84]: 67). While no longer involved in piracy to the same degree, these structures have diversified their focus to other activities, including the investment of illicit profits from piracy into legitimate enterprises along the Somali coast, but also other forms of maritime crime to which their networks, resources and skills are well suited, including arms and people trafficking [78]: 56-57; [85].

Countermeasure driven adaptation commonly occurs hand in hand with opportunity-based motivations. As certain crimes become more risky, new opportunities can emerge to replace them in consequence of geopolitics or criminal innovation. Often such opportunities are conditioned by changing geopolitical circumstance. An increase in conflict or instability in a particular country or region for example may create new demands for armaments or lead to increased numbers of migrants as people seek to flee violence or deprivation. It is notable, for example, that the escalation of the war in Yemen from 2015 created new opportunities for trafficking activities across the Bab el Mandeb both to and from the country [86].

Similarly, the emergence of the Western Indian Ocean as a key

conduit for the movement of Afghani heroin – known as the Southern Route – was a consequence of the destabilisation of more established routes through Russia and the Balkans (the so-called Northern and Balkan routes). European sanctions on Russia from 2014 led to strengthened border security in Eastern Europe and disrupted trafficking activities in the Northern Route. Significantly increased border security between Turkey and Iran caused by the Syrian conflict interrupted the Balkan route [85].

As Percy and Shortland [84] suggest, these adaptations suggest a ‘sweet spot’ of instability for organised crime to flourish. If a country or region is secure and well governed, criminals will have to work harder to avoid detection, interdiction or arrest. Conversely major war – as in Syria – can make operations more difficult due to increased border security or the dangers that such environments offer to those working within or travelling through them [87].

A final way in which blue crime can be dynamic is through unintended consequences. Crimes carried out in one area may lead to pathologies or opportunities that fuel the unexpected growth of maritime crime elsewhere. For example, extensive illegal (or at least unregulated) fishing by foreign vessels off the coast of Somalia was widespread in the early 2000s, largely because the collapse of the Somali state left it unable to protect and police its own waters. The consequent decline of local fish stocks undermined the local artisanal fishing economy, leading to fishers to turn to piracy, at least initially, as an alternative form of income and a way of protecting their own waters [88].

Similar effects have been recorded in artisanal fishing communities more widely, often, and again, in consequence of over-fishing caused in part by illegal and unregulated activities [89]. The UNODC [90] for example notes that falls in the profitability of artisanal fishing due to declining fish stocks and competition from illegal vessels has encouraged fishers in South East Asia and elsewhere to turn to maritime crimes – such as illegal fishing themselves, the use of forced labour on their vessels or smuggling – to supplement their incomes or reduce costs. At the same time, dwindling fish stocks may serve to make illegal fishing itself even more profitable as the value of catches increases with their scarcity.

7.3. Summary and links to the wider maritime security environment

In summary, and despite the diversity of different activities they entail, to understand blue crime one needs to study convergences, synergies and connections. The turn to thinking in terms of blue crime enables us to recognise these intersections as consequential nodal points for cross-disciplinary theorising and research, but also as mechanisms for organising effective policy responses.

Our discussion above also highlights further interconnections between blue crime and the wider maritime security environment. These include issues of conflict, instability and state weakness, but it is also notable that blue crime relates to themes such as geopolitics and terrorism too. DeSombre [91] for example has shown how illegal fishing activities interact with inter-state disputes and geopolitical competition in the South China Sea region. Similarly, and while we exclude maritime terrorism from our classification above, strong evidence suggests that some such groups may engage in blue crime in order to finance their activities. Examples include sugar and charcoal smuggling in Somalia, which has been linked to the Al Shabab group [49]: 6; [16], kidnapping for ransom in the Sulu and Celebes Seas which has been linked to the Abu Sayyaf group (Stable Seas 2019: 34-5), and the existence of long discussed, albeit contested, links between piracy and terrorism [18]: 31-3). These wider interlinkages suggest important further avenues for research in maritime security studies more generally.

8. Conclusion

The introduction of the notion of ‘transnational organised crime at sea’ was an important step. Although it has reached the UN Security

Council and is there as elsewhere increasingly used to frame the debate on maritime security and ocean governance, confusion continues to abound about its content and boundaries. This article has taken the debate one step further in arguing for a need to conceptualise these phenomena as different expressions of blue crime and laying out the three basic categories of blue crime. This provides the foundation from which to understand both the distinctive nature of individual types of crimes, but also the ways in which they interact and link. Three further consequences follow.

First, it is clear that some forms of maritime crime are significantly better documented than others. Sometimes, this a case of certain crimes being politically prioritised and relatively well researched, such as piracy, while others are not. Others – such as drug trafficking – are reasonably well recorded and understood in some regions, but less so in others. A key task for blue criminology and policing responses is hence to conduct further in-depth surveys on the quality and nature of data available on each of the blue crimes.

Second, the paper implies that more work needs to be done to understand the ways in which different actors and organisations involved in the fight against maritime crime share information between each other, and more widely. In part, this concerns issues of transparency, trust and the existence (or otherwise) of appropriate data-sharing channels. However, it also includes methodological questions, including the extent to which data is comparable or collected according to common categories and definitions. There is an important question over the relationship between how maritime crimes are conceptualised, recorded and understood, and the kinds of responses these conceptualisations engender from those engaged in the fight against them. These can range from security driven responses, law enforcement and criminal justice measures, harm reduction strategies, or responses aimed at addressing the root causes of crime, economic development or capacity-building activities. The complex, adaptable and interconnected nature of maritime crime suggests that one dimensional countermeasures are unlikely to be effective, and also that consideration needs to be given to how different responses may work together, or conflict and undermine each other.

Finally, it points to the importance of the governance and organisation of joined up responses to blue crimes, including capacity building. While UNODC and Interpol have emerged as two key international organisations addressing blue crime, the international and regional governance systems are fragmented and lack integration. Crimes against mobility are primarily addressed in shipping and port regulations, by international entities such as the International Maritime Organisation. Criminal flows are the main focus of border and customs authorities, and bodies such as the International Organization for Migration or the World Customs Union. Environmental crimes are in the hand of environmental agencies, such as UN Environment Programme or Food and Agriculture Organization, which lack expertise in addressing crime. Other issues, such as crimes against infrastructure are hardly addressed at all. Rethinking these governance structures and addressing institutional fragmentation both on a regional as well as global level will have to be a considerable part of the international response to blue crimes.

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Appendix A. Supplementary data

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