

# Poached lives, traded forms: Engaging with animal trafficking around the globe

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## Abstract

From the depths of the Borneo jungle to private *ménageries* through the dark web, this article investigates the expansion of contemporary wildlife trafficking and maps an early twenty-first-century booming trade in living organisms, dead animal parts and metempsychic imaginaries. Fuelled by a multiplicity of emergent relational entanglements, such traffic involves life and death matters, big money interests, coveted commercial routes (and their extensive influence over land, people and spirits) as well as deep affective states infused with apocalyptic narratives, blood and bullets, tourism and terrorism. Here I concentrate on the curious case of pangolin poaching and identify problems pertaining to the characterization of life forms when such forms are massively poached, extensively traded and, overall, continuously transfigured along various registers of activities. Concomitantly, I detect in today's so-called 'multispecies-turn' a problematic conceptualization of what an animal (individual or species) is – be this animal alive or dead, whether it should be hunted, protected, consumed, reproduced, mourned, or even held responsible for a new geological epoch. Rather than assuming the given of an already individuated form (from which to consider either pre-conceived or post-confirmed developmental stages), I draw on individuating processes that actually enable individuals to emerge (and emergence to individuate). While distinguishing between dynamics of concrecence and indetermination, I offer positive, operative and alternative concepts to re-engage with mo(ve)ment of shared becomings. Here, the animal is approached as an event.

## Keywords

emerging properties, green criminality, illegal wildlife trade, individuation processes, modes of attentiveness, anthropocene

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## Résumé

Depuis les ménageries privées nord-américaines jusqu'aux jungles de Bornéo, en passant par les *dark webs*, cet article revient sur l'expansion du trafic international d'animaux exotiques, ses routes commerciales illégales, ses intérêts économiques puissants et ses conséquences redoutables sur les territoires, les modes de vie et les esprits de ceux qui, morts ou vifs, en chair ou en poudre, alimentent désormais le troisième marché noir mondial. En me concentrant ici sur l'étrange cas des pangolins (mammifère le plus trafiqué au monde) et sur la multiplicité d'enchevêtrements relationnels que leur commerce implique, j'identifie une série de problèmes (théoriques, épistémologiques et méthodologiques) relatifs à la caractérisation des organismes vivants dans les sciences sociales contemporaines – en particulier lorsque de tels organismes se trouvent massivement braconnés, largement trafiqués et, de manière générale, continuellement transfigurés. Parallèlement, je décèle dans ce que l'on qualifie désormais de *multispecies turn* une conceptualisation problématique de ce qu'est un animal (individu ou espèce) – et ce, que cet animal soit encore vivant ou déjà mort, qu'il faille ainsi le protéger, le chasser, le consommer, le reproduire, le pleurer, ou bien encore, le tenir responsable d'une nouvelle époque géologique. Dès lors, plutôt que d'assumer le donné d'une forme de vie déjà individuée (à partir de laquelle considérer différents stades de développement, soit pré-conçus, soit post-confirmés), je m'intéresse plutôt à l'actualisation des processus existentiels qui permettent aux organismes vivants d'émerger, relationnellement, et à l'émergence, de s'individualiser formellement. En distinguant de la sorte entre phases de concrétion et phases d'indétermination, je propose à la discussion une série de re-conceptualisations attachées aux différents mo(uve)ments d'un devenir humanimal, c'est-à-dire partagé. Ici, l'animal est compris, d'abord et avant tout, comme événement.

## Mots-clés

criminalité verte, modes d'attention, processus d'individuation, propriétés émergentes, trafic d'animaux sauvages, anthropocène

*In effect, Funes not only remembered every leaf on every tree of every wood, but even every one of the times he had perceived or imagined it... He was, let us not forget, almost incapable of general, platonic ideas. It was not only difficult for him to understand that the generic term dog embraced so many unlike specimens of differing sizes and different forms; he was disturbed by the fact that a dog at three-fourteen (seen in profile) should have the same name as the dog at three-fifteen (seen from the front).*

(Borges, 1967)

*We call intuition here the sympathy by which one is transported into the interior of an object in order to coincide with what there is unique and consequently inexpressible in it.*

(Bergson, 1946)

*The relationship is neither prior, nor subsequent, to the regimes of individuation, but simultaneous (a praesenti) to them. This simultaneity of relations and individuations is important because it implies that any relation is an immanent event to individuation, the contours and forms of which we cannot a priori trace. We do not know what can give rise to the effective connection (mise en relation) of heterogeneous elements – what we can call a being-collective in the wider sense (at once composed of objects, things, individuals, ideas, etc.) – as this connection necessarily leads to a regime of individuation, which is to say, the emergence of something which cannot be reduced to its elements nor to any totality.*

(Debaise, 2012)

## Vies minuscules

Born in a clear-cut tropical forest of Borneo, a pangolin is poached by a local hunter who will take the animal to a temporary buying station set up by a middleman who regularly visits remote villages in the jungle. The animal is then sold to an intermediary who will transport the prize and resell the captive body to a ship captain who usually deals with illegal workers. Travelling from fishermen's boats to cargo holds, the now-frozen pangolin lands in the hands of an exotic food distributor who will dismember the corpse, separate the meat from the scales and sell them separately. The animal's defrosted flesh will then be served in a Ho Chi Minh City restaurant which specializes in highly prized delicacies, while the scales find their way to a Cantonese medicinal clinic where they will likely be dried, roasted and powdered before being mixed with butter, oil and boy's urine as a remedy for excessive nervousness. Whilst many pangolin species are now regarded as critically threatened, based on growing scientific attention (and research), conservationists' efforts are helping raise awareness among the general public via international media campaigns. Concomitantly, scholars are engaging with multispecies realms and the complex variety of emergent relational entanglements they encompass.

Rewind.

One could already pause here and start to unfold fertile lines of thought from this very first paragraph. For instance, how do contemporary imaginaries of wellness fuel an important black market where health benefits are attached to consumable animals, like pangolins? How are those 'qualities' thought to be extractable from the actual body of a live organism and transmissible to the remained parts of a dismembered corpse? How do these body parts actually produce value, along with considerable appeal and repulsion, appreciated on hectic illegal activities?

Or, in another register of activities (this time not pertaining to organisms but to ecosystems), one could pause again and reflect back on how Southeast Asian tropical forests have been seriously transformed over the course of the last three centuries, in the wake of colonial activities where considerable patches of woodland have been cut drastically to export timber, cultivate rubber and now produce palm oil. What is often regarded today as a pristine jungle or an untouched forest<sup>1</sup> already bears complex historical traces.

In this dense enmeshment of emergent, continuous and structuring processes – shaping both organisms (such as pangolins, hunters or ship captains) and ecosystems (such as the recomposed forests of Borneo) – life forms (for detailed discussion, see Helmreich & Roosth, 2010) and their constant metamorphoses are at stake. In this article, I concentrate on life movements (both vital and lethal) and on their respective animacies taking place

today within a rather complex, dis/integrating world. While possibilities of reflecting on wildlife trafficking prove multiple, ranging from commodity-chain frameworks (e.g. Collard, 2014) to analyses of biopolitical apparatuses (see Rutherford, 2011), the polarities I am investigating here pertain to situational and processual realms.

I reflect on some emergentist processes of information and communication that now compose contemporary animal lives. Propelled by an ethnographical enterprise I have been developing over the last seven years (see Jaclin 2013a, 2013b), this article elaborates more specifically on fieldwork I undertook in Malaysian Borneo during the summer of 2014, where I did research among peoples and animals of Sabah. From the courting of two solitary pangolin animals and their mating along traces of feces in the rainforest to the consuming of a highly prized delicacy made out of their offspring's flesh in a Vietnamese restaurant where white collars celebrate a friend's promotion, my work draws on the complex organic/mechanical/symbolic circulation that the expansion of contemporary wildlife trafficking entails.

Replay.

... *Born in a clear-cut tropical forest of Borneo...*

While I was writing this article, an eco-apocalyptic blaze was consuming several hundred thousand acres of Borneo's terrain.<sup>2</sup> Palm oil plantations' middle managers had begun an uncontrolled slash-and-burn clearing scheme to expand their businesses; the fire spread quickly and, in three weeks, more CO<sub>2</sub> than the annual emissions of Germany was released (see Mooney, 2015). A third of the world's wild orang-utans (not to mention the millions of other existences inhabiting these tropical spaces) were literally burning. While many North Americans dressed up in fancy costumes for Halloween, thousands of Southeast Asian forest residents wore rudimentary masks (if any) to mitigate massive air pollution. In a rather troubling concordance of times, palm-oiled treats were massively consumed while drastic clear-cutting tricks were turning highly biodiverse square footage into ashes. On one side of the planet, integrative socio-cultural activities and their corresponding sugar rushes; on the other side, disintegrative eco-agricultural behaviours and their cascades of damages. Sugar and carbohydrate's dietary forces, ashes and dehydrating carbonization, these are more than just a set of connections between two different parts of a networked world. They are entangled regions of activities along which emerging properties are continually unfolding in what seems already more complex than just a butterfly effect.

Transfigured forces, disrupted lives ... The burning of Borneo's most ancient forests offers a powerful exemplum of what it means to actually *share* a place. Here the oft-heard 'one air, one planet' motto (and its related slogan, 'everything is connected') takes another twist and reaches a new plateau by changing the nature of some contemporary ecological and cultural considerations (see *Guardian*, 2015). But, paradoxically enough, while our twenty-first-century scientific machine is only starting to acknowledge the diversity of nonhuman inner and outer worlds, this *Umwelted* diversity is now being shattered at a violent pace.<sup>3</sup> In a time of Anthropocenic fears and apocalyptic narratives of human anti-heroism,<sup>4</sup> I therefore thought it crucial to investigate those transmuting ways in which many uprooted contemporary critters actually exist, consist and eventually will (or will not) persist.

If pangolins' scales may well end up, after a significant journey, roasted on small fires in Chinese dispensaries, it was the outright blazes from the 2015 slash-and-burn season

that dramatically exposed the Borneo pangolin population – by either killing most of its members in uncontrolled fires or by rendering the survivors more visible and, therefore, catchable to non-hunters. In this (now emerged) embered landscape, it is as hard for pangolins to eat, mate and live, or to hide as it is easy for amateur poachers to collect them, a situation which, in return, also affects black-market activities. Paradoxically, while fewer pangolins may be ‘available’ overall, they are now easier to catch ... Here collateral effects of this eco-apocalyptic blaze are working the prices (of pangolin lives and of people’s livelihoods) up and down.

## Emergence(s)

Complex inheritances from colonial times, dangerously seductive neoliberal fantasies, marginalized groups, overpowering elites converted to corporate cultures, and redistribution of habitat resources all actualize here in a complex set of life-(un)making events. As is often the case with catastrophes, be they geo-physically driven or eco-politically motivated, the violence with which life processes are also struck reveals a bit more of how these processes were previously unfolding.

... *Born in a clear-cut tropical forest of Borneo ... a pangolin ...*

The term pangolin comes from ‘*penggulung*’, the Malay word for rolling – the action pangolins usually take in self-defence. When threatened, the creature tends to roll into a ball, allowing for some bouncing but no openings.<sup>5</sup> This mechanism renders the catching of the animal (especially by humans) relatively easy, while it prevents more conventional predators from cracking the body open and feasting on its flesh. Pangolins are about the size of a raccoon and look like artichokes with legs. Their heads and bodies are covered with an armour of thorny scales made of keratin (which account for 20% of the animal’s weight), giving them the appearance of a reptile.<sup>6</sup> These shy, nocturnal creatures predate almost exclusively on ants and termites, which they catch with the help of an agile sticky tongue almost the same length as their pangolin bodies. When threatened, they sometimes emit a noxious acid, like skunks. Their eyesight is limited, but their senses of smell and hearing are quite precise. The oldest pangolin living in captivity died at the age of 19, but the average life span of pangolins remains unclear. Often regarded in Asia as little dragons, they have long been prized for their scales, which are used in traditional Chinese medicine. Meat from those ‘armor/nail/scale bearers from the mountain’ (穿山甲) is often regarded as a luxury item by a growing Southeast Asian and Chinese middle class, who customarily feed on their bodies in celebration of a special occasion.<sup>7</sup> The price can reach many hundreds of dollars per kilo. For instance, 100 grams of pangolin scales in a Hanoi medical dispensary will sell for around US\$80 (more or less 1,800,000 Vietnamese dong). Over the past ten years, almost a *million* pangolins were smuggled, earning them the title of most trafficked mammals in the world (Pantel & Chin, 2008).

These scaly anteaters are exceptionally vulnerable to over-exploitation (Pietersen, McKennie & Jansen, 2014) as they are easily hunted, have a very slow reproduction rate and do not easily breed in captivity. All eight species of this animal,<sup>8</sup> which is found over large areas of Africa and Asia, are on the IUCN Red List radar screen, while a IUCN-SSC Specialist Group is now entirely dedicated to the pangolin. Two of the four Asian species – the Chinese and the Malayan pangolin – have been listed as critically endangered, while

the two others – the Philippine and the Indian pangolin – have been registered as endangered. The four species found in Africa (and now also in Chinese medicinal dispensaries) – the Cape, the Giant Ground, the Tree and the Long-tailed pangolin – are listed as vulnerable but face major threats since, as the number of Asian specimens declines, there is an increasing demand for African ones. In fact, with the right paperwork, international trading of an African pangolin is allowed, even though many organisms are now being poached and shipped at a disturbing rate.

Individuals are not so much beings as much as ways of being. Ways of being born, being desired, being poached or being burned ...

So, when a pangolin body is taken, dismembered and shipped to another space, the ‘animal’ is not simply dead. Its previous form is. Yet something actually passes between its dead body and other live forms: between one entity and another; between the form of this singular animal being poached and myself, the researcher, the writer, or them, the poachers, the middlemen, the distributors, the consumers; as well as the social networks, the various media narrating their possible extinction; but also the photographs; the zeitgeist; and a number of bank accounts.

In this respect, being able to conceive of some complex (and interwoven) emerging processes proves central to our understanding not so much of what a pangolin is, but rather of what a pangolin body is actually capable of. Or, to conjugate the Spinozist imperative on a more contemporary note: what does a pangolin do even after being poached and eventually killed? Instead of defining this peculiar animal form exteriorly, I wish to concentrate on the pragmatics of its relationship to (and within) the world. A world where mo(v)ements of individuations are nonetheless quite asymmetrical; a world where illegal fishermen and wealthy businessmen are clearly not able to affect pangolins’ lives (as well as each other’s lives) in the same way, that is along the same modalities, intensities or registers of activities. Similarly, the canvas of *individuation complexes* that their respective force-fields constantly animate is not affected by pangolins along the same lines either. Body producing desire, dead flesh turned into capital, protein and keratin transduced into value and exchanged for a couple of US\$, the registers of activities that actually feed on those asymmetrical realities are not only powerful and numerous, they are also disparate and distributed.

## **An individual, forever becoming other than itself (I)**

The main movement of this article resides in its intention to lay the ground for a conceptual framework that would encompass realities apparently as diverse as postcolonial indigenous conflicts (poaching by Borneo hunters) and economies of desire in a growing neoliberal context (Asian middle-class consumption of social goods like pangolin flesh). To provide an alternative framework of being/thinking/engaging with trafficked animals and other life forms in constant transformations, I rely on concepts such as *field* or *region* instead of site or territory, *force* instead of power, *intensity* or *density* instead of violence or domination, *individuation* instead of individual.

Such concepts (field, force, intensity, density or individuation) dynamically imply ideas of a collusion/collision relationship between a center and a periphery. That is between intertwined structuring modalities expressed within various foyers of disparate

activities. For example, the encounter between a pangolin body and a market activity can be regarded as the collusion/collision between morphogenetic lines of keratin production emerging from a multi-million year-old evolutionary pathway and capitalo-centric traits of surplus-value creation emerging from a twenty-first-century neo-liberalized economy of consumption. Whereas most of the ‘replaced’ terms (site, territory, power, violence, domination, individual) suppose the ability to set proper limits – even though such limits are often difficult to establish (for instance, exactly where and when does the territory, power, violence or domination of today’s pangolin realities actually start or end?) – those limits prove more and more inadequate when it comes to understanding the complex levels of interactions at play between distinct (but indissociable) registers of life – such as habitat-altering dynamics, species reproduction rates, increasing demand for animal by-products, international legal frameworks, media campaigns, and so on.

In the case of wild animals being exponentially trapped, poached, smuggled and trafficked before being consumed and eventually turned back into energy, such a translation of vocabulary proves interestingly operative. Instead of wondering where and when such animals stop being animals, I instead inquire about the various force-fields their bodies actually inhabit and generate (alive and dead). Such an approach facilitates a more robust comprehension of life movements as it refers to a *locus* of inter- and intra-actions (rather than referring to connections among a preconceived set of formalized categories). Such a locus, contrary to many enterprises of objectification, does not have to be motionless (i.e. cut and extracted from its constitutive realities) in order to be comprehended. On the contrary, a ‘locus approach’ draws attention to continuous variations and to different degrees of stability operating within and along alternate phases of concreteness and indetermination.

So, instead of intellectually delimiting responsibilities vis-à-vis a form, it is rather the unfolding of a shared movement of co-(in-)formation that I undertake, and for several reasons. First, it invites a shift in the perspective usually attached to local/global realms and comparative assessments of form (often implying an exterior point of view able to determine both scales and units) to the shared movements of animation that binds forms of life and life forms into a common becoming. Second, it tends to put life and death events on a same immanent (and ethical) plane rather than hierarchizing them (transcendentally?) along with a moral stance – which is always a question of power and ideology, as every nomenclatural or religious imperative reveals. Third, it allows for a certain continuity in the project of detailing the complexities of relational entanglements. It is one thing to say that relationship and individuation processes should not be separated, yet quite another to clearly explicitate the granularity and the consistency of both such (co-existing and co-constituting) entanglements.

Rerun.

## **An individual, forever becoming other than itself (II)**

Take a four-year-old pangolin that developed along some curious morphogenetic lines, now weighs a few kilograms and is being poached along Borneo’s Kinabatangan River by a local hunter interested in making a couple hundred ringgits for a new cell

phone he plans to buy. ‘Ironically’, the scales of a pangolin – its defence mechanism – are now the reason for its continuous capture and dismemberment. In death, its scales continue to animate other life processes, be they related to food consumption or oriented towards human(iac) socio-cultural practices.<sup>9</sup> Sure enough, the pangolin animal will be killed at some point, which is always important to remember (do not get me wrong) but not sufficient to account for the broader story, since parts of the poached animal will eventually circulate, being transformed and thus giving birth to value, speculation, desire, medical remedies and soup.

These *transductions* are not just about protein, money or affect, but about all these operational fields and their concomitant, differential and creative togetherness. In this respect, how can we conceive of such movements? How can we regard the presence of an absence along with its distributed modalities? How can we envisage the existence of the dead (and vice-versa, the deadness of an existence)? More a/effectively: how can we envision the liveliness of death and the deadness of life when their transductivity proves so central?

Clarification.

By transduction I mean, following Gilbert Simondon:

an operation – physical, biological, mental, social – by which an activity propagates itself from one element to the next (*de proche en proche*), within a given domain, and establishes this propagation on a structuring (*structuration*) of the domain operating from place to place: each region of the constituted structure serves as the principle and the model for the next region, as a primer (*amorce*) for its constitution, to the extent that the modification expands progressively at the same time as the structuring operation. (Simondon, 2005: 32; my translation)

It is precisely *in* the passing from one region to another, *in* transduction and emergence, that indetermination (of form, place, movement, relation and even matter) turns into concreteness. And vice-versa. Once dead, the pangolin body (or the primary forest) will not be able to resurrect (or grow again, at least not before a very long time and certainly not exactly in the same way), but the remains of this specific body (or this specific ecology) will nonetheless continue to circulate, intersect and eventually activate (through a variety of emerging processes) other fields, other realms, other individuation complexes. Following the unfolding of events (the poaching, the slash-and-burn clearing), the new modalities of existence of both the pangolin body and the tropical forest are shifted towards more or less indetermination, more or less concreteness, which is to say towards new capacity to affect and to be affected.

Here, it is the conception of what an animal is (or is not anymore) that changes consequently; emergent in itself, neither unified nor identical, an individual (as pangolins remind us) never pertains to a single order of reality, but on the contrary always proves plural. Following lines of trickle-up and -down logics, poaching in particular and wild-life trafficking in general take us through a multiplicity of force-fields where lands (*geo*), living beings (*bio*), habitats (*eco*), communities (*ethno*), money (*capital*) and practices (*etho*) all transduce.



... Born in a clear-cut tropical forest of Borneo ... a pangolin ... is poached by a local hunter...

An indigenous Southeast Asian hunter is declared a poacher because the territory where he regularly hunts,<sup>10</sup> and where his ancestors used to hunt, is now a park reserve listed as a protected area by the authorities.<sup>11</sup> Malaysian authorities, for many indigenous groups, can be construed as another colonial authority – the latest in a long and violent history. After the Brunei Sultanate and the British, it is now Kuala Lumpur that rules this significant part of Borneo territories (principally the north and north-western part of the island).<sup>12</sup> Such a territory is extremely valuable both in terms of space (76,115 km<sup>2</sup> for the province of Sabah where our hunter/poacher lives and 124,450 km<sup>2</sup> for the province of Sarawak) as well as in terms of resources, petroleum and palm oil being the two most-exported commodities, which create important revenues (and international leverage) for Malaysia in today's world.<sup>13</sup>

Along with Indonesia, Malaysia now accounts for more than 85% of today's international palm-oil production, the second most consumed vegetable oil in the world.<sup>14</sup> In fact within such a centralized eco-political system and while powerful corporations such as Nestlé or Procter & Gamble have been granted permits for extensive exploitation of Sabah's territory, most of the province's resources and production profits are drained to inland Malaysia. So when park reserves are created, to the applause of many environmental groups and for the pleasure of an increasing number of 'green' tourists who enjoy guided tours in fantasized pristine areas, some observers stress that the new status (and the accompanying hunting prohibition) is in reality problematic. Particularly since it does not address the original issue of the corporate stranglehold over the palm tree (mono)culture empire and its direct consequences on land use, fauna and flora.

And when it comes to wildlife trafficking, what complicates the story even more is that these corporations control a very influential political organization, the Malaysian Palm Oil Council,<sup>15</sup> which provides financial aid to help 'prevent' deforestation as well as wildlife trafficking. Interestingly enough, most of the Sabah Wildlife Rescue Unit's resources (including brand new SUVs and uniforms) are provided by this council. Therefore, in a circle of convoluted transductions, resources are now provided by the revenues from the palm-oil culture itself – a culture that is directly responsible for the increasing destruction of wildlife habitats as well as for the generation of open landscapes in which uprooted animals are made more visible and easier to catch.

Moreover the intricacies of those transductions do not stop there. They also extend to the media sphere, where those brand new SUVs regularly feature on individual Facebook profiles and other social networks, when young rangers take selfies of their powerful ride. Those selfies trigger, in return, admiring comments from people all around the world, happy to see that *something* finally seems to be done about wildlife trafficking in Southeast Asia (a series of comments that also pleases the Palm Oil Council board members). As young men are provided with all the attributes of highly Americano-masculinized military tropes (members of this unit call themselves the 'jungle warriors' (see *Wildlife Warriors of Sabah*, 2015)), the situation crystallizes around war themes,

against poachers and along rather simplistic views of good and evil worlds (even though, or maybe especially since, poachers sometimes come from the same village as some of these young jungle warriors).

In such a reconfiguration of complex force-fields (with differential intentionalities, ranges, intensities, powers and scopes), a number of beings are continuously emerging and disappearing. Some of them have more potency than others – meaning they can act and operate with various intensities in realms that are shared and collectively composed but within which not everyone (always-more-than-itself) possesses the same reach.

Again, my work is less concerned with entity than with events; less with organisms per se than with complex processes of expressive organicities invariably enmeshed in collective and differential mo(ve)ments of becoming. Hence I am interested not so much in sites (the jungle, the port, the dispensary or the restaurant) as in fields (structured along hunting activities, smuggling undertakings, business enterprises; all of them co-constituted actions, shared, and performed by always-more-than just animals, always-more-than simply people or institutions). These fields are continuously (re-)emerging along a multiplicity of distributed intensities, disparate densities, different modes, various registers and differential forces.

Here the idea of emergence is understood neither as the final purpose of a preconceived process, nor as a process that unfailingly produces novelty, but rather as a way to render the transitivity of beings (and their becomings) when enmeshed in a complex realm of structuring, distributed and quite frequently dilatable forces.

Pause.



**Figure 1.** Baby pangolin.  
Photograph by Paul Hilton<sup>16</sup>.

### **An individual, forever becoming other than itself (III)**

Repeat.

*... Born in a clear-cut tropical forest of Borneo ... a pangolin ... is poached by a local hunter...*

When a life form is taken (poached, seized, cooked or saved), the processes by which this specific form came into existence are both shattered and re-injected into the energetic world (before they eventually start to restructure again).

Because several of the ‘multispecies’ discussions<sup>17</sup> and work produced today rely on what I regard as a problematic idea of what an animal is (be it alive or dead, whether or not it should be poached, protected, consumed or mourned), I would like to propose alternative ways to think about/engage with life and its constant transmutations. How? By looking at individual animals from the perspective of their individuations (i.e. the processes of information and communication that give form to an organism or, if we scale up, to a species) and not the contrary (looking at individuation processes from the perspective of an already individuated organism or an identified species).

The challenge here is to seriously reconsider the emergent formation of living entities beyond the mere reproduction of beings or the comprehensive study of the elements that, gradually, make beings. Instead I seek to build another dimension, not separate from the present constituents but different, one that can describe the changing state and the potentialities inherent to any such change. In order to do so, I engage with the relational ontology that is attached to each and every (humanimal) interaction.

As Didier Debaise stresses:

What do the constraints of individuation bring to the level of thinking relations? First: that the question of relations, regardless of the area in which it arises, must be seen in the context of the genesis of the being-individual (whether this is a technical object, the living or even physics), all true relations being essentially processual. It is because it has cut the relation and individuation that modern thinking has only been able to reproduce false problems such as how individuals can form groups, how subjects can enter into relations with objects, etc. We suppose that the relation comes after the formation of the terms (subjects, individuals, objects, groups). But what the construction of the plane of nature allows is for the relation prior to the term to be within individuation. Individuals communicate in groups because they are all taken in individuations, becomings. Similarly, subjects are in relation to objects because they all tend to something other than themselves, something which contributes to their identity. What communicate are not subjects between themselves, but regimes of individuation that meet. (Debaise, 2012: 7)

Here relationships are not assumed to come after the formation of the terms (pangolin, hunter, animal, human). On the contrary, relationality is regarded as being prior to the terms and operating within regimes of individuation. In this conception, we do not come from a world already composed of pre-constituted organisms or even one displaying a given structure of organismic positions ready for organisms to occupy. Rather, what is at stake is precisely the emergence of the organism, its primary constitution, or its re-emergence and reconstitution. In another word: its *evenementiality*.

In the case of a pangolin being either alive and trying to mate in a charred forest or poached and dismembered before being shipped to several wildlife trafficking hubs (in both cases, a life form constantly becoming other than itself), following life movements proves significant. In fact, every individuation, every emergence and every transduction (in their power to affect and to be affected) runs a transition. It is precisely because of (and within) this transition that, as Massumi (2015: 38) writes, ‘a body passes from one state of capacitation to another diminished or augmented state of capacitation’.

Back to pangolins.

*... a poacher who will take the animal to a temporary buying station set up by a middleman who regularly visits remote villages in the jungle. The animal is then sold to an intermediary who will transport the prize and resell the captive body to a ship captain who usually deals with illegal workers ...*

Since it is not always possible for local hunters/poachers to go to a market every time they find something in the forest, middlemen set up temporary stations they regularly visit to collect the animals and deliver them to markets – or to any other hub leading to a market. Those temporary stations are often located in the village surroundings where, based on local or international demand, middlemen will either cut the pangolin’s throat, bleed the animal and freeze it or, if the creature is not ‘big enough’, force-feed it with corn to increase its weight as well as the expected profits. When the number of poached pangolins reaches a critical plateau (most of the time between 10 and 50), middlemen usually transport the catch to a coastal warehouse where the prize will most likely be shipped either locally (to Sumatra for instance) or directly to Vietnam or China.

The province of Sabah has an extensive coastline where it is easy to load and unload shipments. Since pangolins are quite resistant to starvation and can handle transportation in a net (if watered from time to time, especially in tropical climates), it is not rare to find them still alive in a custom seizure. Once again, *geo, bio, eco, ethno* and *etho* force-fields intersect. And at each intersection, shifts occur that interrupt, cut in and reconfigure both human’s and pangolin’s modes of onward deployment of life. For every animal to continue to exist, to move from one state of capacitation to the next, it has to re-continue, to constantly re-organize around multiple disruptions. By approaching pangolins as well as every individual animal in its power of existence, as an event, as a locus of growth and decay, as affected beings and beings affecting, I insist on multiple determinations folded into each mo(ve)ment of life and demonstrate the resonance arising across these nodal points.

News.

The Indonesian National Police’s Criminal Investigation Division (BARESKRIM MABES POLRI), the Government of Indonesia, and the Wildlife Conservation Society’s Wildlife Crimes Unit (WCU) recently announced the seizure of a shipment of pangolins headed to China and valued at approximately 1.8 million US dollars (USD). This is the largest case of pangolin smuggling in Indonesia since 2008 when the Indonesian National Police, supported by WCS’s WCU, arrested two smugglers and confiscated 13.8 tons of frozen pangolins in Palembang.

The seizure took place on April 23, 2015, at the Belawan sea port in Medan, the largest city on the island of Sumatra. Belawan Seaport is notorious for being an import and exit point for illegal wildlife trafficking. The haul included 5 tons of frozen pangolins, 77 kilograms of pangolin scales, and 96 live pangolins. A smuggler, identified by the initials SHB, has been arrested. SHB allegedly dealt and exported pangolins that he ordered from local dealers in Aceh and north Sumatra. Under Indonesian law, trafficking of pangolins, their parts and by-products is punishable by a maximum penalty of five years of imprisonment and a maximum fine of USD \$10,000.

In recent years, the price of pangolin has increased sharply in the international market, driven by demand from China. Based on current black market prices, the value of the seized shipment is 1.826 million USD. Pangolin scales (considered to have healing qualities by traditional Chinese medicine practitioners) are valued at USD \$3,000 per kg, pangolin meat (considered a delicacy) at USD \$300 per kg, and live pangolins at USD \$1,000. Smugglers also ship pangolin innards, including foetuses, for traditional medicinal purposes.

Based upon evidence gathered during the arrest, the shipment was headed to China. In order to avoid police and customs detection, the suspect had exported the shipping container that held the pangolin cargo from a secondary port to a cargo ferry offshore, where it was obscured among other containers. The cargo ferry then docked at Belawan Port where the container was to be transferred to a vessel destined for China via Haiphong Seaport in Vietnam. The exporter also shipped live pangolins to Penang, Malaysia through a remote seaport in Medan. (*ScienceDaily*, 2015)

Even before embarking on a long journey to China or Vietnam, poached pangolins actively bear the traces of a convoluted world, being both products and producers of superposed durational frames, socio-cultural conducts and co-perceptual activities.

## **The infinite regress of a cause searching for its own cause**

The very specific and localized action of poaching a pangolin in a forest of Southeast Asia crystallizes an important set of transductive realms. Some pertaining to the *temps long*,<sup>18</sup> like the powerful residue of colonial times and the historical appropriation of Borneo's resources. Others belonging to the *temps court*, such as the desire to make money out of some hunting in order to buy a new cell phone. Here forms of life and life forms mingle into what Karl Marx once referred to as a metabolic rift,<sup>19</sup> where differential modalities of actions, regimes of intentionalities and intensities (all of them distinguishable but not dissociable) congregate.

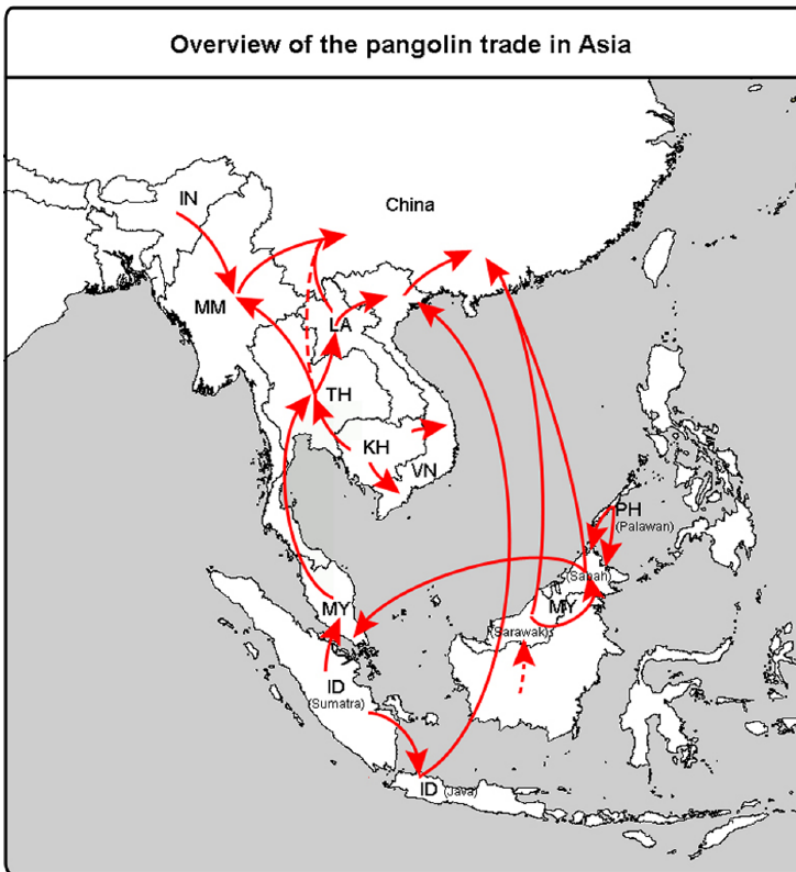
Interestingly enough, approaching the curious case of pangolin poaching through the lens of individuation, using concepts such as emergence and transduction,<sup>20</sup> allows for a certain shift in the thinking of what a body can actually recapitulate, incarnate and catapult all at the same time. Indeed, every living organism is the recapitulation of a historical continuity elaborated through geological times, geographical dispositions, physical organizations and vital animations (and would simply not exist without such processes of inscription and transmission). Embedded in living organisms' inclinations (both acquired and inherited), such a continuity is constantly charged/discharged, while living organisms carry forward their propensities to not only exist but to continue (or cease) to exist. In other words: to re-continue (or dis-continue) life.

Resume.

... Travelling from fishermen's boats to cargos, the now-frozen pangolin lands in the hands of an exotic food distributor, who will dismember the corpse, separate the meat from the scales and retail them separately ...

Flows of goods are so massive in our contemporary world that it often proves impossible for any port authority to actually search or supervise searches on even a small portion of the international trade (Figure 2). In those containers, animals (dead<sup>21</sup> or alive, in one piece or dismembered) also travel.<sup>22</sup> As Nordstrom underlines:

Goods move. In the world of trade, goods have their own kind of sovereignty. In a way, while traders and trade are situated in, and respect, specific local, national and world contexts, they constitute their own unique – one might say sovereign-like – state. Movement is primary, borders are secondary. Laws, some might argue, tertiary. (Nordstrom, 2007: 117)



**Figure 2.** Pangolin trade routes. Prepared by Sandrine Pantel for TRAFFIC Southeast Asia, this map charts the main Pangolin trade routes based on surveys and official seizure information.<sup>23</sup>

Rewind forward.

... *Whilst many pangolin species are now regarded as critically threatened based on growing scientific attention (and research), conservationists' efforts are helping raise awareness among the general public via international media campaigns.*<sup>24</sup> *Concomitantly, scholars start to engage with transpecies realms and the complex variety of dynamic relations they encompass ...*

In an effort to reconcile the movements by which critters circulate, develop or disappear in a world of flux – as many poached animals end up doing nowadays – and the processes by which scholarly effort could engage with such circulation – as many multi-species conceptualizations aim to – I want to bootstrap this article (in itself operative on several circulatory modes) by raising the issue of scales.

### **The scale game (or how to roll in self-defence)**

Scales are what protect the pangolin from its predators, what constitute a contact zone with the outside world and give the animal its outlandish appearance. Pangolin scales are hard when hit but soft when articulated. To this animal in particular, scales used to be what allowed for protection and survival. But pangolin scales are now what may drive the eight species to extinction altogether.

In another realm, a different kind of scale is also what confuses most analyses of whereabouts when it comes to mapping twenty-first-century animal trades and their associated vital and lethal activities. Scales range from molecular to stellar (from DNA analyses performed by wildlife forensics officers to zodiacal calendars and constellations of myths that fuel metempsychic imaginaries and the economy of desire that is attached) and incessantly shift from various levels of organization (be they local or global, synchronic or diachronic); scales trigger perception, sustain cognition and entertain affects. Scales are complex stuff. Not so much, it is true, if envisioned in a rather static perspective – for example, when and where things (or objects, or people, or cultures) hold the stance, are allocated a supposedly determinable place in space and time, in culture and politics.

But because the ability to zoom (and therefore conceive of scales) seems possible only in the presence of a focal point, things can be defined as ‘things’ solely when coordinates are assignable – to what turns out to be a preconceived entity, an entity that incarnates, in a kind of tautological return, the ‘thing’ in question. Chicken or egg are two phases of a singular process, where the actualization/potentialization activity (the chicken laying an egg or the egg growing into a chicken) proves to be, in Batesonian terms,<sup>25</sup> the difference that actually makes a difference.

In the case of animal trafficking, the actualizations/potentializations associated with the pangolin animal are precisely what is tracked, trapped or shot, then poached, transported, disguised, smuggled, transformed, re-bought and re-sold, consumed, digested, etc. The generic categories we often use to follow such transformations are epistemologically useful (an animal, a poacher, a permit, a dish, a dollar, a cell phone), but they do not fully encompass what seems to overflow regularly from such conceptualizations (animality, poaching, permission, dollarization, etc. – that is, entities in the un/making, forever becoming other than themselves). Hence the necessity to conceptualize differently

not only what an animal is or even does, but rather what animals become. Be their forms dead or alive, in one piece or dismembered, significant movements of *in*-formation and *re*-animation still remain.

As Brian Massumi notes about stasis and movement when it comes to understanding the production of statements:

A synchronous structure defines the *logical conditions of possibility* of statements *in general* (What standard permutations can the system produce? What can it do without ceasing to be itself?). The challenge is to conceptualize the *real conditions of production of particular* statements (How does a system move from one unique permutation to the next? How is it forever becoming other than itself?). In the first case, the assumption is stasis and movement is introduced as an afterthought, if at all. In the second, stasis exists only relatively (as a lower degree of difference: the repetition of different statements within the same relative limits of becoming), and the world is recognizable as the chaotic one in which we live. (Massumi, 1992: 42–43)

So when entities turn into individuation complexes, the delicate task of (better) understanding the circulation of goods, bodies, ideas or viruses proves increasingly complex (as well as increasingly productive). And when the focus shifts from animated bodies to what animates (and actually contributes to) a body, we tend to conceive otherwise of a messy circulation of organic material around the world, as the curious case of pangolin trafficking exemplifies. Especially if we also acknowledge the fact that such a circulation is itself immersed in a bigger flux of continuous exchanges – be they organic, mechanic or symbolic.

In this respect, it seems to me that there is no such thing as a ‘human species’ in that particular sense that *a* human individual or *humans* in general are always part (product, producer and process) of a broader community, a multitude including non-human others,<sup>26</sup> and that the properties expressed by such a multiplicity far exceed the simple affiliation to a category primarily based on biological traits and the founding principle of filial reproduction that set aside *so many* other reproductive ways not quintessentially sexualized or linear.<sup>27</sup>

For instance, the concept of species still refers to the categorization of (complex) individuals or populations of individuals,<sup>28</sup> not to individuation complexes (or multitude of regimes of individuation). So instead of thinking (again and again) in terms of separable entities that could be extracted from their realities by virtue of their belonging to an auto-referential category, I prefer to apprehend hybrid communities in their complex enmeshment with various force-fields that are not limited to a preconceived characterization of taxonomical properties, but rather based on transductive (and, by extension, transpecific) individuation complexes.

Think again of the eco-apocalyptic blaze mentioned in the introduction or, for that matter, of any ‘Anthropocenic’ reference made to the current capacitation state of our contemporary world.

If price is what you pay and value what you get, then a poached animal implies both a substantial loss for the often fragile *ecosystem* it inhabited (or what can now be referred to as a force-field reconfiguration), but also the creation of value along the chain of intermediaries supporting its circulation/transformation (or what can now be referred to as transductive, emergent and individuating relationalities). Even in critical situations, life encompasses vitality and manifests a certain potential for reinvention. Reclaiming potentialities and qualities of movement in every situation, including the most anti-life ones,



overrules infinite regress causalities – which are, in a sense, the manifest consequence of an ecological thought that tries to think through its own conditions of possibility.

Hard when hit but soft when articulated.

Moving from a four-legged posture to a scaly rolling ball is the ‘technique’ embodied by pangolins for self-defence. But the actual passage from one mode of being to the other proves to be only effective against big cat claws, not against human appetite. Quite the contrary, in fact.

## Creative modes of attentiveness

As an increasing number of ‘exotic’ animals see their daily lives (and deaths) critically merging with that of *Homo sapiens* (and vice-versa), I suggest that animality, more than a simple collection of mere attributes or even a basic manifestation of an elaborate biochemical complex, constitutes an enmeshment of individuation complexes constantly in motion and intrinsically made up of emergent relationalities.

Thinking such individuation complexes and emergent relationalities conjointly opens space for creative modes of attentiveness to every researcher concerned with processes by which an entity actually becomes (and transforms). By exploring the complexities of a multilayered informational and communicational realm, *bio-eco-techno* assemblages are constantly produced along multiple registers of co-structuration. And since one’s existence is never a given, but rather a (co)production, a coagulation, indeterminacies are produced every time relationships are coupled with other enduring force-fields (without which life would be simply impossible). While most of those operationalities<sup>29</sup> are susceptible both to impingement from others and to variable degrees of interpenetration with them, one needs to (re)consider complex sets of interaction between random and deterministic processes, of effects propagated up and down, of properties emerging (or not) at higher levels and their predictable and contingent influence.

Resulting in the death of millions and the extinction of many, processes of such relational entanglements now compose a transnational space dynamically shaped by local hunters, global distributors, law enforcement officers, organized-crime members, megalomaniac private zoo owners or pop culture followers (among others). Involving multilayered communication processes (mixing zoonosis with CITES procedures, ranging from microbiotic exchanges to bio-political potencies), contemporary wildlife trafficking feeds on money and desire, capital and cultural projections. Here sidelined communities, criminal organizations and Kafkaesque institutions propel ecopolitical reframing of rights, power and capitalization over land, fauna and flora.

It is almost impossible to name an animal or plant species anywhere on the planet that has not been traded – legally or illegally – for its meat, fur, skin, song, or ornamental value, as a pet, or as an ingredient in perfume or medicine. Every year China, the U.S., Europe, and Japan purchase billions of dollars’ worth of wildlife from biologically rich parts of the world, such as Southeast Asia, emptying out parks and plundering wild lands, often newly accessible along logging roads. The path to market typically begins when poor hunters or farmers catch animals for local traders, who pass them up the supply chain, though some traffickers – Anson Wong among them – have even dispatched their own poachers, posing as tourists. In Asia, wildlife ends up on the banquet table or in medicine shops; in Western countries, in the living rooms of

exotic-animal fanciers. The economics are as easy to understand as an art auction: the rarer the item, the higher the price. Around the globe, nature is dying, and the prices of her rarest works are going up. While no one knows exactly how large the illegal wildlife trade is, this much is certain: it's extraordinarily lucrative. Profit margins are the kind drug kingpins would kill for. Smugglers evade detection by hiding illegal wildlife in legal shipments, they bribe wildlife and customs officials, and they alter trade documents. Few are ever caught, and penalties are usually no more severe than a parking ticket. Wildlife trafficking may very well be the world's most profitable form of illegal trade, bar none. (Christy, 2010)

When high-valued remains of smuggled 'exotic' animals bond with the prospective health (or social) benefits associated with the consumption (or possession) of emblematic yet critically endangered species, poaching activities blend postcolonial realms and Anthropocenic narratives of human anti-heroism. Understood as a significant realm of humanimal processes inducing matter to emerge and emergence(s) to matter, contemporary wildlife trafficking encapsulates many of these intricate ramifications of life that our troubled times are said to pressure and thus provides a substantial reality-based phenomenon that helps (re)think through some of our multi-specied, multi-sited and multi-narrated constructs.

Multiplied worlds emerge everywhere. While participating in phenomena that are both fascinating and terrible, they generate potentialities, connections, imaginaries and opportunities. What is particularly interesting about the various postnatural ecologies wildlife trafficking constantly restructures are their abilities to (re)potentialize life. That is, to shuffle physical, biological, psychic and collective realms,<sup>30</sup> all of them engaging disparately with problems emerging from the co-existence of various productive and transductive force-fields. In fact the trafficked ecologies I explore and conceptualize are less denaturalized spaces than (continuously) renaturalized states in which individual animals (humans and non-humans) not only demonstrate adaptive responses to selective pressures, but also initiate creative processes at a number of levels (and from which fertile lines of thought stem). As Simondon reminds us: 'we cannot, in the common understanding of the term, know individuation, we can only individuate, individuate ourselves, and individuate within ourselves' (Simondon, 2009: 13).

## *Overture*

As an invitation to fan out such a conceptualization into a larger and operative realm (where the trading of modes of existence across the nature-culture divide is not exclusively commercially driven), I would like to end (and open) this article by clarifying my use of the word 'traffic' – since I obviously do not refer solely to the actual trafficking of animals (i.e. to the number of animals being smuggled in a specific place, be it a border, an airport or a local fair), but rather to the constant and dynamic realms of humanimal exchanges – and their structuration processes emerging through an intensive (and complex) circulation of organic, mechanic and symbolic material.

In the kind of traffic I am framing here, poaching activities are not only central, they are bloody and messy and violent. Here the constant borrowing of affects, proteins and labours those activities embody have been capitalized on for centuries, creating



**Figure 3.** Sumatra, Indonesia, April 2015. Photojournalist Paul Hilton attended the official (and mediatized) incineration of several thousand pangolins – most of them seized in the Belawan operation mentioned in the news vignette above. He writes: It's 6 a.m.; upon arrival I see a pit next to an excavator. I meet the team; nothing really prepares me for what I'm about to see. As I approached the side of the pit, I'm left speechless. Thousands of dead pangolin bodies, some frozen, others defrosted and some in plastic bags. A spokesman from the police said that pangolins were four to five deep. According to WCS, I was looking at least three, possibly four thousand in total. At 9 a.m. the National Police arrived ahead of the Minister of Environment and Forestry Siti Nurbaya Bakar and after a brief ceremony the pangolins were set alight. (Hilton, 2015a).

something like a more-than-a-debt situation. A situation that is not easy to account for without a strong sense of indeterminacy (and the creative magnitudes that go with it). Those indeterminacies are at play in every life, but seem particularly exposed in the case of the increasing number of animals now caught in the wildlife trade or, in this being-collective at once composed of organisms, routes, money, affects and laws.

As this article shows, the pangolin's status of endangered species is also trafficked, as are most biopolitical operations that frame lives as 'wild' and declare those lives either legal or illegal to trade.<sup>31</sup> In reality, when bans come into action, the 'zoo star academy' process (where one animal species is preferred to another one<sup>32</sup>) reacts in kind. And because pangolins have been declared illegal to trade (for reasons we have seen and reasons that are far from clear or simple), confiscated bodies have to disappear, says the law. In what was then staged as a *grand bûcher*, piles of used-to-be-wild becoming-other-than-themselves animals were ... burnt. And not just anywhere. They were burnt in what used to be a jungle, now in the process of turning into a desert, in the middle of which a mechanical crane and some dubitative officers were supervising a *holocaustum*.

Transductive speculation here: what if, instead of burning them all, authorities had created a fund and supervised the sale of those scales and pieces of flesh, working the black-market prices down (and not up, as was the case after the massive burning), discouraging poachers at the same time (instead of encouraging them, because the Southeast Asian demand has not changed yet, whereas the organized-crime offer has been

significantly affected after the seizure, resulting in more pressure on middlemen, more violence in the poaching, more bloody transductions)? Might the money have been reinvested in local community projects of forest revitalisation for example, or even species reintroduction programs?

That is, instead of considering animals from a reductive substantialist point of view or from a strictly hylemorphic perspective (focusing on matters of form or forms of matter), rather concentrate on movements that give form to matter and matter to form. Which, at a time when animal rights and bio-ethics are regularly at stake (and are indeed a serious preoccupation for societies that strive to leave behind medieval practices, but also attempt to cope with their biotechnological becomings<sup>33</sup>), contributes an original ethological dataset interested not so much in what an animal is or should be, but in what animal existences actually consist of, both concrete and indeterminate.

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## Notes

1. About social-natural landscapes and the historical (re)configuration of humans and non-humans across the Island of Borneo, see Tsing (2005, ch. 5).
2. About Borneo, its history, people, flora and fauna, and their collective enmeshments in a complex economical, political and ecological set, see Dove (2011) and the introductory chapter of Wadley (2005).
3. While drones record images of massive beluga populations fraying in the Canadian Nunavut Cunningham Inlet, Brazil's Minas Gerais is facing a major ecological catastrophe.
4. About the Anthropocene and among the vast literature currently produced around this hyper-object, see in particular (for the origins of the concept and a list of scientific observations produced to identify this new geological epoch) Waters et al., (2016). See also (for the discussion such a concept triggered among social sciences) Bubandt et al. (2016).
5. For a YouTube intermission, a proto-soccer game and more evolutionist perspectives on movements and predation, watch News Hour India (2011).
6. As the IUCN-SSC Pangolin Specialist Group notes: 'Pangolins are understood to have diverged from the Carnivora around 70 million years ago and are one of the least diverse mammalian orders. All extant and fossil pangolins reside in the family Manidae, the only family within the taxonomic order Pholidota. Despite fulfilling a similar ecological niche, they are taxonomically distinct from the anteaters, armadillos, and sloths of the Order Xenarthra' (IUCN/SSC Pangolin Specialist Group, 2016).
7. Adoption of food habits may also be regarded through the lens of both individuation complexes and emergent properties. See in particular Heather Paxson's work on American cheese and her conceptualisation of life also revolving around multi-layered transductive activities (Paxson, 2012).
8. Four species (and two genera) live in Africa: the Black-bellied pangolin (*Phataginus tetradactyla*), the White-bellied pangolin (*Phataginus tricuspis*), the Giant Ground pangolin (*Smutsia gigantea*) and Temminck's Ground pangolin (*Smutsia temminckii*). Four other species (one genus) are found in Asia: the Indian pangolin (*Manis crassicaudata*), the Philippine pangolin (*Manis culionensis*), the Sunda pangolin (*Manis javanica*) and the Chinese pangolin (*Manis pentadactyla*). The Asian species are distinguished from the African species by the

presence of hair between their scales.

9. About supply and demand for the consumption of wildlife products and both the social and conservation issues it raises, see Verissimo, Challender & Nijman (2012).
10. It is interesting to note that, due to the irregular nature of the catch, pangolin hunting is not regarded as critical to indigenous livelihoods. Their catch is rather opportunistic and their collection organized regionally by syndicates. For more details about the sociology of hunters, see Pantel & Noorainie (2010).
11. On a legal note, it is interesting to observe that, in Malaysia, pangolins are listed in Part I of Schedule 2 as Protected Animals under the 1997 Wildlife Conservation Enactment. This means that a hunting licence is required. But the province of Sabah has adopted the precautionary principle and does not allow any hunting until a Non Detrimental Finding (NDF) study has been carried out. Therefore all hunting of Schedule 2 listed species is illegal, including pangolin hunting. There is a penalty for hunting without licence: a fine of MYR50,000 (almost US\$12,000), a five-year imprisonment, or both. The penalty for possession of Part I of Schedule 2 and CITES Appendix II listed species without a licence is a fine of MYR30,000 (almost US\$7,000), a three-year imprisonment, or both. And the penalty for taking specimens out of the State without a permit is a fine of MYR50,000 (US\$12,000), a five-year imprisonment, or both. Interestingly enough, when TRAFFIC gathered stakeholders from all of Southeast Asia at a conference held in the Singapore Zoo, even if most of the geography is similar between these countries (Malaysia, Indonesia, Brunei), very different approaches in terms of wildlife management were presented, from a 'no problem' situation (Brunei) to highly developed enforcement (Indonesia).
12. About history again, it is interesting to note that smuggling in Southeast Asia is not a recent phenomenon. As Tagliacozzo notes: 'particular historical moments dictated to regional colonial governments whether or not it was in their self-interest to designate products as officially illegal. Thus while guns, unfarmed opium, and especially human beings, for example, prostitutes and slaves, were often demarcated as contraband, other commodities such as pepper, porcelain, and even bulk shipments of rice were only sometimes listed so. Likewise, specific ports could be declared to be open to trade or strictly off-limits, depending on a variety of factors that worked to the advantage of these same colonial governments. Both scenarios encouraged a brisk flow of officially illicit goods, either in newly illegal items or to newly illegal places' (Tagliacozzo, 2005: 5).
13. For a more detailed picture of Sabah's economics, see the report produced by University Malaysia Sabah for the Oxford Business Group (University Malaysia Sabah, n.d.).
14. About the oil and its dietary qualities as well as its transformational potential, see Edem (2002). For an interesting analysis of a structuring economy, its production networks and glocalised realities in Indonesia, see in particular McCarthy et al. (2012).
15. For the corporate blurb about the industry and its 'green' engagements, visit the website of the council at <http://www.mpoc.org.my/>. To learn more about the complex ecological implications of this growing industry, see Hansen (2005).
16. A member of the International League of Conservation Photographers (iLCP), Paul Hilton (<http://www.paulhiltonphotography.com/>) has done extensive work on the pangolin poaching trade, especially in Indonesia. See for instance his article for the *National Geographic*, where he details how local poachers use dogs in order to catch pangolins and how, once caught, they usually process the animal (Hilton, 2015b).
17. See for instance The Multispecies Salon (Kirksey, 2014: 1–24.), where artists and anthropologists are lounging about discussing poaching. Following the work of Michel de Certeau, authors of the Introduction to the book launch an invitation to poach and 'to trespass on the "private hunting reserves" cultivated by elite literati' (Kirksey, 2014: 5). Interestingly enough, the term poaching is used to suggest an ecology of creative *emprunts* without any mention

of the blood and bullets such poaching activities usually entail (especially when it occurs in private hunting reserves where asymmetrical bio-political powers are obviously at stake). Metaphors of scholarly life are good to think (and to live with), but, as with every metaphor, they have their own limitations. More to the point: How can we inhabit those limitations, how can metaphors be regarded as propelling productive comparisons, as well as creating transductive speculations? The authors seem to refrain from such transductions when it comes to animal lives themselves. If (highly aestheticized) poaching is good for texts and salons, it appears obviously not to be as good for endangered species. As this article shows, I am less interested in the dismantling of pre-conceived forms (be they an acad-emic text or an endemic organism) than in the transductions (in terms of affective force-fields) the dismantling of literary *and* organic corpses implies. If texts can easily be cut and pasted (with such a cut-and-paste practice encouraged for its creative potential), it seems that pangolins, too, not only can be, but actually are, cut and cooked. To be comprehended, such a reality requires more than just moral condemnation along with imperative stances (a text and an animal life do not have the same value, because ...?). Here an ethical approach is preferred that would be able to comprehend how the poaching of an idea and the poaching of an animal life are actually performed, and performed in two different realms but, still, along the same logics (the capacities for dismemberment of an entity – or the dividualistic realities of an individual – and the creative potential that is attached to such dismemberment). What is at stake is the transductivity of disparate force-fields expressing *very* different intensities and propelling differences (a text or an animal) that do not end up making the same kind of difference (ok to poach, not ok to kill). In short: as of the Anthropocene, multispecies is an (affected/affective) concept that merits a Spinozist conjugation: not what multispecies (ethnography, poaching or turn) is, but rather what it actually does (and does not), and to whom.

18. 'The history of smuggling in this part of Southeast Asia and the attempts to stop it by various incarnations of states and proto-states stretch back centuries into the region's past. Early civilizations in this part of the world did not evince clear-cut borders and boundaries that could be crossed illegally. Rather, they often existed, especially on the mainland, in the form of mandalas, a geographic core of strong authority that radiated outward in progressively weaker fashion until it ceased to command effective allegiance at all. In insular Southeast Asia, a concomitant model saw petty kingdoms establishing themselves in the mouths of rivers; authority consisted of trying to establish control over trade, especially in the taxing of products that moved up and down river (*hulu* and *hilir*, respectively)' (Tagliacozzo, 2005: 9).
19. As Mckenzie Wark writes about the Soviet production of cotton draining the entire Aral Sea (in the wake of a Cold War episode in trade and politics): 'This is an example of what, after Marx, we might call *metabolic rift*. Labor pounds and wheedles rock and soil, plants and animals, extracting molecular flows out of which our shared life is made and remade. But those molecular flows do not return from whence they came. The waters diverted from the Aral Sea to the cotton fields did not come back. As Marx knew, agriculture is a maker of deserts. Marx's examples of metabolic rift was the way nineteenth-century English farming extracted nutrients such as nitrates from the soil, which growing plants absorbed, which farmers harvested as crops, which workers in the cities ate to fuel their industrious labors, and who would then shit and piss the waste products out of their private metabolism. Those waste products, including the nitrates, flow through run-off and sewers and pour out to sea. Whole industries for making artificial fertilizer would arise to address this rift – in turn causing further metabolic rift elsewhere' (Wark, 2015: xiii–xiv). Interestingly enough, we could think of the palm industry this way and look at the circulation of molecules, labour or money it involves in order to get a better sense not only of the connectivity of things, beings and other becomings, but also of the movements of structuration/de-structuration constantly at

- work when multispecies, multisited and multicultural transductive frameworks operate. Take palm-oil derivatives, circulations into food and toothpaste through ‘private metabolisms’ to sewers (when existent) back to the soil, etc.
20. About transduction(s), see also the work of Stefan Helmreich, who uses the concept in relation to Sound Studies and Ethnography. His take on resonances and participatory co-presences echoes roundly with some of the core ideas developed in this article. For more details, read in particular: Stefan Helmreich (2007, 2015).
  21. ‘Valuable and portable, reptiles were the diamonds of wildlife trafficking ...’ About exotic animal smuggling techniques, see Christy (2008).
  22. For a bigger picture of the international wildlife trade (legal and illegal) in Southeast Asia, see Nijman (2009).
  23. Sandrine Patel map accessed online 10 December 2015 at <http://www.traffic.org/home/2010/10/28/seized-notebooks-give-unique-insight-into-scale-of-illicit-p.html>.
  24. Time for a YouTube moment? Watch the short clip produced by the Zoological Society of London (ZSL, 2015).
  25. As Noel G. Charlton stresses: ‘Bateson asks, if the territory does not get onto the map, what does? For him, the inevitable answer is “difference”. He notes Kant’s understanding that the most elementary aesthetic act is the selection of a fact. Kant believed that, for example, in a piece of chalk there is an infinity of facts. The *Ding an sich*, the piece of chalk itself, can never enter into a mental process but must remain inaccessible. The sensory receptors *must* filter out most of the facts, while those that enter into the mind are selected and become information. Bateson modifies Kant’s statement to mean that there is an infinite number of *differences* in any “thing” and that we select those “differences which make a difference” to ourselves’ (Charlton, 2008: 121–122).
  26. Which, therefore, constitutes a fertile entry point to address, and productively critique, the Anthropocene ‘file’. To which *anthropos* exactly are we referring when mobilizing such an abstract category? Can humanity really exist (and not only on an auto-performative level, which is a kind of existence nonetheless) without all its non-humanity to back it up? *Anthro* suffers not only inter-species lack of discernment but also intra-species lack of elaboration. How do individuals or populations actually relate to a categorization that includes ‘others’ they may have never met when the ones they have (and actually share a lot with) are excluded from such a categorization to start with? My homeless street neighbour got a dog because people tend to give more when a dog is part of the equation ...
  27. Traditional forms of kinship have difficulties holding water when confronted with our contemporary biotechnological apparatus. See, for instance, Sarah Franklin’s work, in particular, Franklin (2013). Or Donna Haraway’s new *koan*-ish motto: ‘make kin, not babies’.
  28. For an up-to-date (anthropological) discussion of contemporary biological classification and the never-ending, always-more-than, ‘species’ affair, see Kirksey (2015).
  29. Deployed along both actual and potential modes.
  30. Those are the different registers of individuations identified by Simondon. For more details see Simondon (forthcoming) and Combes & LaMarre (2013).
  31. The illegal commerce of animals is now estimated to be the fourth most important black market in the world; adding to that the money gravitating along the pet industry or the meat industry and we have a pretty good idea of how big is the realm of animal capital. Caught in such a realm, billions of existences actually struggle, develop, pass it on and die.
  32. About seduction and repulsion vis-à-vis the animal kingdom, see Jaimie Lorimer’s interesting concept of ‘nonhuman charisma’ (Lorimer, 2015, ch. 2: 35–55).
  33. Here, *biomedia* are not considered the latest nipper of our technological modernity, slowly shifting from inorganic materialities to organic potentialities, but rather an ancient deviation of natural forces (too quickly restricted to domestication). Instead, *teckné* and *anima* operate

jointly and disparately to propel what I call *aniculture* and which I consider to be not only a part of our anthropogenic processes, but also a mutagenic pool of differentialities from which humanity constantly draws in order to reinvent itself.

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## Author biography

David Jaclin holds a doctorate in Anthropology from the Muséum d'Histoire Naturelle in Paris and a doctorate in Communication Studies from the University of Montreal. A fellowship from the Fyssen Foundation enabled him to carry out postdoctoral work at MIT (HASTS). He is presently an assistant professor at UOttawa's School of Sociological and Anthropological Studies, where he heads the HumAnimaLab. Jaclin's research focuses on the history of domestication, on contemporary human/animal/machine relations and on the complex information and communication processes associated with them. More specifically, Jaclin is currently working on two research projects concerning the Anthropocene. One bears on the international trafficking of exotic animals and the green criminality fuelled by this black market (i.e. its commercial, cultural and affective routes, its ecological impacts and the biopolitical stakes involved in conservation in particular). His other project concerns *biomedia* and the digital and artefactual futures of engineered living organisms. He is particularly interested in the socio-technical undertakings known as *de-extinction*, and in the promised resurrection of the Siberian Mammoth.