



<https://www.manchester.ac.uk/discover/news/palaeontologist-cleared-of-fabricating-data-in-dino-killing-asteroid-paper/>

The mistakes made in graph preparation and reasons for the truncated methods section are all clearly explained in that document and therefore this submission to *PeerJ* provides nothing of scientific value to the reader beyond what is explained in that report which has now been available online for 4 months.

For reasons of transparency, we are obligated to list all of the allegations that were presented by During & Ahlberg, which comprised the UoM investigation:

-Scooping and unethical sabotage

During and Ahlberg accused Robert DePalma of “deliberately publishing a rival paper on the same topic and identical conclusions” as an “unethical sabotage attempt” against Melanie During.

-Data fabrication and manipulation

During and Ahlberg accused Robert DePalma of data fabrication and manipulation in order to carry out the “scoop and unethical sabotage” of the first allegation

-Corrupt interaction with handling editor

During and Ahlberg accused Robert DePalma of corrupt interaction with the journal in an effort to carry out the action of the first allegation

-Smear campaign

During and Ahlberg accused Robert DePalma of initiating a social media smear campaign against them

After the official UoM inquiry that was exceptionally rigorous and lasted nearly one year, plus a subsequent appeal initiated by the complainants and a thorough treatment of every single allegation, all four of the allegations were found to be without merit and were overturned.

The investigation concluded that the data in question were not fabricated, the claims of “scooping via a rival paper”, corrupt interactions with the journal, and social smear campaign were all unsupported by the evidence.

The investigative panel determined that, even in light of this exoneration, “the overall conclusions of the paper still stand should the stable isotope results be removed”

It was determined by the investigation that During also knowingly provided untrue statements to the panel, including but not limited to (1) claiming that she was not aware that DePalma was working on the study, and (2) claiming that he had not invited her to be a part of it.

After all of the points listed against the defendants were addressed and/or overturned, the UoM Ethics Board clearly informed During and Ahlberg that, given that they were aware that their claims were overturned by the outcome ruling of the investigation, they were to refrain from pressing them further as that would constitute dishonest and malicious willful dissemination of untrue statements.

2) Because this matter has already been thoroughly investigated and adjudicated via a formal research ethics inquiry, we need to alert the editors of *PeerJ* to the fact that this manuscript submitted by During, Voeten, and Ahlberg, which repeats these allegations, is defamatory and potentially libelous. In light of the severity and nature of the allegations that were leveled at the corresponding authors of DePalma et al., 2021 by During and Ahlberg in their complaint to UoM, and the fact that all of those allegations were overturned and found without merit, the additional attempts by During and Ahlberg to repeatedly circulate the same critique, including the draft submitted to *PeerJ*, are unethical, fail to honor the official process that had been undertaken, and do not follow a pattern of impartial and altruistic academic pursuit. They instead appear to constitute an abuse of the scholarly journal system for reasons other than scientific merit.

3) We also want the editors of *PeerJ* to be aware that this manuscript has been redundantly submitted to various journals by During and Ahlberg over the past two years and has already been published at least twice, see for example:

PubPeer (<https://www.pubpeer.com/publications/9B9D041BD4D3633C2D4F99D002DF87>),

*PCI Paleo* (DOI:10.24072/pci.paleo.100221)

These two versions of this manuscript are essentially the same as what has been submitted to *PeerJ*, in fact the *PCI Paleo* manuscript is verbatim the same and was published online on the 26<sup>th</sup> of March, 2024, only ten days before the date of April 5<sup>th</sup>, 2024 assigned to the *PeerJ* submission.

Therefore the authors are attempting to re-publish the same material which has already been published and has an active DOI assigned. This does not meet the criterion for valid new research that would be suitable for publication.

4) The manuscript was also previously submitted to *Scientific Reports* which rejected it on the grounds that it provided no scientific value. The precedent set by the rejection, and its basis, should have bearing on the assessment of the suitability for publication of the same content that has now been submitted to *PeerJ*.

5) Lack of disclosure was also problematic. It is clear that the authors concealed from *PeerJ* the true extent to which their manuscript had previously been submitted, breaching a policy of transparency that is typically standard and required by journals. Under the Declarations heading of the *PeerJ* submission, which asks “Are any elements of this paper or text under consideration at any other journal, or have they been published elsewhere already?”, During, Voeten, & Ahlberg concealed that they had previously submitted the same material to *Nature Scientific Reports*, as well as its submission in other online formats, including *PubPeer*. During, Voeten, & Ahlberg concealed multiple occasions on which they distributed the same material, falsely implying that the content had not already been exhaustively belabored, and implying a greater novelty and applicability for the new submission. This misrepresentation to the journal, seemingly to make the manuscript appear more favorable for

publication, is problematic.

6) In our experience, a critique would normally appear in the same scholarly journal as the paper that it critiques. The present attempt by During, Voeten, & Ahlberg to side-step that procedure and publish in a different journal is irregular, departs from standard practice, and should be regarded with concern.

7) In the *PeerJ* manuscript draft, there is mention of the During et al., 2022 manuscript and its relation to the DePalma et al., 2021 paper being critiqued. However, almost none of the coauthors of During et al., 2022, except for During and Ahlberg, have joined the *PeerJ* critique draft or any of the aforementioned near-identical iterations that were circulated as complaints. Abandonment by nearly all other coauthors in those efforts strongly suggests their lack of confidence in the content being presented and the course of action. This should also be taken into consideration.

8) Finally, the editor should be aware that two of the authors of this manuscript, During and Ahlberg, are currently under investigation at the University of Uppsala for alleged plagiarism of material that is closely related to this submission and additional serious breaches of professional ethics. During was the lead author on a manuscript that replicated the work that was reported by DePalma et al. 2021, that was already underway when During learned about it in 2017 (*UoM investigation finding: "During was aware of DePalma's long-standing research on seasonality and that he was working on a paper", and "During was aware of DePalma's work on seasonality and the use of isotope data prior to her visit"*). Submission of the current manuscript to *PeerJ* is therefore at best a conflict of interest.

**For the eight above reasons, we recommend that the submitted manuscript is not a fit candidate for publication. However, that assessment is supported by multiple additional key facts related to the content of the manuscript. Below, following the format for *PeerJ* review, we address specific examples of concerns with the During, Voeten, & Ahlberg manuscript draft, and address their inappropriate use or otherwise unsuitability for publication.**

#### **[Basic Reporting]**

Basic reporting was clear but misleading, as it circumvented known facts to arrive at unsupported conclusions. The authors lacked sufficient background in areas such as field work specifically related to this project and recognition of seasonal growth patterns in fish bone to adequately support their conclusions. The article was a belabored repeat of previous submissions that occurred after the issues raised in the draft were already adjudicated, and therefore does not constitute an example of professional scholarly work.

#### **[Experimental Design]**

This manuscript did not involve scientific experimentation. The questions raised were not relevant and were instead misleading as they were not reflective of the full facts that were known by the authors. Because of that, and because the draft has already been published multiple times elsewhere, it does not fall within the aims and scope of the journal. The aforementioned belaboring of topics that have already been addressed, their redundant prior circulation in public domain, and failure of the authors to disclose those facts do not follow a pattern of altruistic impartial scientific pursuit and therefore do not follow a high ethical standard. The manuscript is a highly biased and uninformed attempt to re-review a publication. The issues raised have been dealt with exhaustively elsewhere, and therefore it cannot truly be regarded as primary scientific research.

### **[Validity of the Findings]**

Problematically, the information presented by During, Voeten, and Ahlberg here is redundant, misleading, and repeats what has already been belabored. All sections exhibit insufficient support of the conclusions or deal with topics that have already been addressed. Comments below are organized by their respective sections.

### **[Stable isotope records with conflicting migratory signals]**

#### Section summary comments

This section makes broad claims about the viability of interpreted migration signals in fossil organisms without acknowledging that insufficient background data is available on migration or feeding habits of the animals in question, or acknowledging that isotopic signals that may indicate migration, if reliable and reflective of said migration patterns, are not central to any key argument or core interpretation of the paper. This section fails to adequately support the authors' criticism against the use of isotopic data to resolve seasonal cyclicity in the acipenseriform bones. Annual cyclicity is expected to be recorded in the bones of animals that experience annual fluctuations in any condition that affects bone growth, whatever those variables happen to be. For purposes of tracking annual cyclicity, identifying which variable affected the bone growth is of minimal importance compared to the fact that an annual pattern exists. During, Voeten, & Ahlberg point to questions related to oxygen isotope shifts that were tentatively interpreted to indicate migration patterns in the sturgeon, despite those interpretations having no bearing on the conclusions of the DePalma et al., 2021 study. Because not all sturgeon taxa exhibit migratory behavior, one would expect that a migration signal, if reliable and not an anomalous isotopic signature or artifact linked to other factors, would be inconsistently present for sturgeon among the population, thereby providing limited to no utility in supporting the conclusions of DePalma et al., 2021. For that reason, the interpretation of migration was never a key point in the study and was not relied upon for the conclusions. During, Voeten, & Ahlberg base part of their critique on patterns in carbon isotopes between the paddlefish and sturgeon in context of their dietary practices, which is problematic because there exists no detailed body of knowledge on extinct Mesozoic acipenseriform fish diets or feeding practices. Indeed, the specific environmental and metabolic factors that influence the annual fluctuations of bone growth even of extant acipenseriforms are very poorly understood ("...it is not easy to explore the effects of environmental and metabolic variations recorded in the spines

because the processes governing bio-mineralization and growth of these pieces are still poorly known”; Meunier 2002; Bakhshalizadeh et al., 2017). Because the authors lacked sufficient background knowledge on the feeding practices of the extinct fish, they attempted to rely on feeding data from some modern fish communities instead, without the ability to demonstrate that they can be applied to the fossil taxa. For example, many factors have never been demonstrated for fossil Mesozoic paddlefish or sturgeon, including whether they fed in the topwaters or bottomwaters, consumed live food or passively consumed detritus, possessed similar feeding practices, or feeding practices that differed markedly, etc. During, Voeten, & Ahlberg fail to adequately uphold their criticism that the isotope data from DePalma et al., 2021 does not support the conclusions that the fish perished in the Spring-Summer paleo equivalent. In addition, we furthermore point out that the conclusions of the DePalma et al., 2021 study are additionally in no way dependent on the isotopic data and the conclusions are fully supported even in its absence. (UoM investigation finding: *“the overall conclusions of the paper still stand should the stable isotope results be removed”*). The incorrect statements made by During, Voeten, & Ahlberg in this section, which fail to support their conclusions, demonstrate insufficient background/experience in this field of work by the authors.

## **[Primary Data]**

### Section summary comments

During, Voeten, & Ahlberg state that no isotope data is provided in the DePalma et al., 2021 paper, however they misrepresent themselves by their omission of certain key facts. For example, as with many other studies, the data was available upon request and was, in fact, immediately supplied to the journal when requested. It was also supplied to the UoM during their rigorous investigation of the allegations made by During, Voeten, & Ahlberg. Not only did During, Voeten, & Ahlberg know about that, but they, too, received a copy of the data. The concealment of those three facts from *PeerJ* during submission is problematic and demonstrates a biased presentation of incomplete facts to support or imply an improper conclusion. While the data was always available upon request, the journal may have overlooked their opportunity to add a written mention of that fact to the paper during final edits, but it was never withheld. (UoM investigation conclusion: *“the low-resolution blurry photos of paper printouts’ provided by the Respondents to Scientific Reports and the Panel of Investigation...were consistent with what would be expected as a summary of calibrated data reported back to a client from a service isotope lab”*). These data sheets nonetheless constituted scientific data by any definition. (Additional UoM conclusion: *“there was independent evidence from 5 individuals (Oleinik, Burnham, Cichocki, Larson, Erikson) that DePalma’s isotope data pre-dated During’s visit to Tanis in 2017 and that one (Oleinik) had seen the plots in 2016 or early 2017 and confirmed they were the same ones that appear in the Scientific Reports paper”*).

## **[Analytical Facility]**

### Section summary comments

During, Voeten, & Ahlberg state that some details related to the contributions by our late colleague are unclear due to his untimely decease. While regrettable, this, too, was previously surmounted in the

UoM investigation, which was known by During, Voeten, & Ahlberg but not disclosed by them. Our late colleague facilitated the completion of various specialized tasks that were closer to his area of expertise than anyone else on the paper at that time. (UoM investigation conclusion: *“although McKinney’s institution did not have the kind of apparatus supposedly used for the analysis, this was not evidence that McKinney had not sent the samples elsewhere for analysis”*, in addition to the assessment that *“the low-resolution blurry photos of paper printouts’ provided by the Respondents to Scientific Reports and the Panel of Investigation...were consistent with what would be expected as a summary of calibrated data reported back to a client from a service isotope lab”*).

## **[Methods]**

### Section summary comments

As mentioned regarding the analytical facility, the death of our colleague Curtis McKinney occurred slightly before full completion of his contribution, which would have included his write-up of the isotopic methods. Using the notes and discussions that we had during the process, the methods were reconstructed as fully as possible, but some portions remained unknown. Our attempt was to compile methods that were as complete as those notes and discussions would allow, while not including any known falsehoods. This, too, was raised and surmounted in the UoM investigation, the process and outcomes of which are known to During, Voeten, & Ahlberg and which they failed to disclose.

## **[Sampling Density and Amount of Carbon]**

### Section summary comments

During, Voeten, & Ahlberg here fail to support their proposed conclusion that the sampling density is incompatible with the ability to retrieve sufficient sample for analysis. What they concealed from this section is that they are aware of multiple additional isotopic experts who were consulted and determined that it would in fact be possible to functionally retrieve sufficient sample. The description of drill bit shapes and sizes demonstrates an unfamiliarity with the process and technique, as a progressive inward-directed sampling along a peripheral transect is limited only by the incremental step-size capabilities of the micromill, and not the diameter of the burr. It is therefore completely unclear how exactly the number of samples per length of the sampling transect can “correspond”, as claimed by During et al. to the drill diameter. No such correlation exists. This, too, was raised and surmounted in the UoM investigation, the process and outcomes of which are known to During, Voeten, & Ahlberg and which they failed to disclose. The UoM investigation conclusion (which During, Voeten, & Ahlberg are aware of) further contradicted the claims by those authors in the present draft, establishing that *“typically mass spectrometers require 25ug of carbonate for reliable analysis (approximately 500ug of fresh bone is required to reliably yield >20ug carbonate). However, it is just within the bounds of possibility for a skilled operator to recover the number of samples, and for a well-run isotope lab to recover the data”*.

## [Graphs in the Paper and Supplementary Materials]

### Section summary comments

During, Voeten, & Ahlberg point to a variety of errata exhibited by the graphed isotopic data, however, more troublingly, they made no mention that every point raised in this section was laboriously addressed, discussed, explained, and adjudicated in the UoM investigation, all the details of which are known by During, Voeten, & Ahlberg. Their conscious and willful concealment misrepresents the facts of the issue and creates an intentional bias that otherwise could have been avoided. While the topics in this section have already been fully and thoroughly dealt with, it is worthwhile to point out some facts in response. For example, there do indeed exist a number of errata that ultimately result primarily from the untimely death of our colleague and the effort to organize his work, including the manual transcription of figures from his data sheets. The errata are largely applicable to graphs, graphed points, etc., that were manually transcribed from his printed data sheets as carefully as possible. (UoM investigation conclusion: *"The inconsistencies in the data were explained as genuine errors resulting from the lack of raw data as a consequence of the death of McKinney and DePalma's use of the interim data sheet to hand-draw the graphs"*). Other criticisms noted in this section deal with factors that the authors (During, Voeten, & Ahlberg) evidently did not understand or fully read in DePalma et al., 2021 or the UoM investigation report. For example, as explained previously in the UoM investigation and known already to During, Voeten & Ahlberg, none of the graphs are identical. Because the specimens came from multiple animals with near identical life histories from a synchronous death assemblage, and in some instances multiple sets from the same individual, similarities in patterns are not only perfectly normal, but they are expected. Because the growth lines in fish bones are wavy and sinuous, they exhibit compressed or expanded representations of the same growth band pattern, for example in troughs as opposed to lobes. So, in one individual, a single sliced surface can contain a 5-band pattern of growth that is perhaps 3 mm thick in one expanded region or 0.3 mm thick in an adjacent compressed region, with every variation in between. Another example that During, Voeten, & Ahlberg cite is the use of data point icons in the supplemental materials that they misinterpreted as error bars because they did not read the actual figure caption that explicitly states so. Another example is the mention of one specimen number that is listed twice, which was previously clearly explained, and demonstrated during the UoM investigation as being correct, because it reflected multiple sampling of the same specimen, however During, Voeten, & Ahlberg concealed that fact, implying a discrepancy that pointed toward lack of integrity. (UoM investigation comment: *"The Appeal Panel requested clarification from DePalma who explained that Fig 2 was a repeat analysis of the same sample, and provided the data from which it was plotted"*). At the time of their submission to *PeerJ*, During, Voeten, & Ahlberg knew this, and every single other detail in their section about the graphs, which they could have transparently revealed to the journal but instead they only mentioned their initial criticism and omitted everything that transpired since then in the process of addressing and/or satisfying it. As we had previously mentioned during the UoM investigation, of which During, Voeten, & Ahlberg are aware, the legitimate errata in the graphs that are linked to the manual transcription of the data resulted in near imperceptible shifts that were not sufficient to affect the conclusions of the study in any way whatsoever. (UoM investigation conclusion: *"the differences between curves derived from the numerical values in the tables and the curves published in the Scientific Reports paper were minor, as confirmed by two independent individuals (Oleinik and Smit – During's MSc advisor) and were likely the result of the published curves being copied from original plots"*). The UoM investigation upheld the assessment that data fabrication/manipulation



had not occurred, even after an appeal process initiated by During & Ahlberg, and went on to comment that *“the overall conclusions of the paper still stand should the stable isotope results be removed”*.

### **[Thin sections in the Supplementary Materials]**

#### Section summary comments

In this section, During, Voeten, & Ahlberg claim that DePalma et al manipulated an image in the supplementary section, flipping an image that had been photographed twice from the same side. Not only is this statement false and insufficiently supported, but the UoM investigation thoroughly looked into it with multiple experts, concluding that manipulation had not taken place, that the images were not both of the same face of the slide, and that the claim was unfounded. Furthermore, During was cautioned by the UoM Chair of Ethics, that, in light of During, Voeten, & Ahlberg being aware that their claim was false, if they were to perpetuate that claim they would be knowingly and intentionally circulating false and misrepresented facts in a malicious way.

### **[Fish sizes]**

#### Section summary comments

During, Voeten, & Ahlberg claim that During observed no juvenile or sub-yearling fish while she was on-site, implying that none were there. This statement, at best, indicates that they did not observe or recall the sub-yearling acipenseriform fish skull included in Figure 1 of DePalma et al., 2021 as a Micro-XRF map. At worst, the statement reflects a willing concealment of their knowledge of sub-yearling fish fossils at the site, including the personal experience of During. In addition, if During did not observe any sub-yearling fish during her brief site visit, that does not indicate that the fish were not present, but rather is reflective of During’s inexperience working or identifying fossils in that field setting. During lacks familiarization or experience with field work in the Hell Creek Formation (we were told that her ~10-day site visit in 2017 was her first experience in the Hell Creek Formation and she had accrued fewer than two week’s additional field time there in the 7 years since then, as far as we are aware). As a result, it was a challenge for During to detect most fossil material and it had to be shown to her on many occasions. She even personally encountered sub-yearling fish herself, although not intentionally- the well-preserved fins and partial body of what would have been a ~14 cm juvenile acipenseriform fish were discovered freshly broken in her debris pile, unintentionally destroyed as the fossil went unnoticed while she dug into the outcrop **[FIG 1]**. While During may not have measured any fish lengths during her short visit, other researchers on-site did. During, Voeten, & Ahlberg claim that the smallest fish at the site are all 15 cm long, and in support of that they erroneously cited a graph from another publication that intentionally began its tally at the 15 cm size range because the densely tangled mass-death assemblage made it problematic to accurately tally fish smaller than that in situ prior to preparation of the blocks. Regarding growth estimates, the comparison with the seasonal growth ranges of modern fish involved clearly citing multiple compiled ichthyological works, contrary to claims by During, Voeten, & Ahlberg.

## **[Conclusion of a Spring Death]**

### Section summary comments

In this section, During, Voeten, & Ahlberg state that they did not clearly observe osteocytes in the fish bone images, and therefore conclude that discerning the season of death would be challenging or impossible. This claim is perplexing, clearly demonstrates their unfamiliarity with the subject material, and demonstrates their inability to sufficiently support their claim. The assessment of seasonal oscillation in the bones of fish (including acipenseriforms) is routinely, reliably, and most-frequently carried out via counting the annuli, or growth bands, in the bone cross-sections (Kolhorst et al., 1980; Brennan & Cailliet, 1989; Jackson et al., 2007; Bakhshalizadeh et al., 2011; Neely & Lynott, 2016; **FIG 2A**). Each year is represented by a couplet comprised of a light and dark band, with the denser, dark bands grown during the favorable growth period (Spring-Summer) and the lighter, more-translucent, less-dense bands grown during the unfavorable growth period (Fall-Winter). For During, Voeten, & Ahlberg to suggest that the seasonal assessment should be based on osteocyte distribution is peculiar, uncustomary, not requisite, and not aligned with standard practice. Our assessment, based on the very clear patterns exhibited by strongly defined growth band couplets that are on par with modern counterparts [**FIG 2**] is robust, unambiguous, and was favorably critiqued by multiple professional bone histologists prior to publication of DePalma et al., 2021 (and listed in the acknowledgements thereof). Based on studies of annual growth in modern acipenseriformes, the bone histological data, alone, was sufficient as the exclusive indicator of season-of-death for DePalma et al., 2021, barring all other evidence presented by that study. In addition, During, Voeten, & Ahlberg attempt to undermine the conclusions of DePalma et al., 2021 by claiming that the data indicates a Summer death rather than Spring. While we disagree with the focused exclusivity of that assessment, their comment further indicates their unfamiliarity with the DePalma et al., 2021 paper, which interpreted a Spring-Summer range for time of death, which is consistent both with the data of DePalma et al., 2021 and During's replication of the process.

## **[Conclusions]**

### Section summary comments

During, Voeten, & Ahlberg state that "The stable isotope graphs presented in DePalma et al.'s paper, as depicted in Figure 25 and the Supplementary Materials, exhibit patterns that deviate from what would be expected from direct analytical outputs". With that statement, During, Voeten & Ahlberg misrepresent themselves by concealing that they already knew the reasons for minor errata in the graphs, as they had already been thoroughly addressed during the UoM investigation. They also cite absence of raw data, when they already had in their hands the raw data, which was immediately provided upon request, as is customary for any scientific paper that does not contain it in the text or supplement. They claim that the evidence presented does not align with the assertion/conclusions of our study, however that statement is incorrect and fully unsupported, because the multiple, independent, mutually reinforcing lines of evidence in DePalma et al., 2021 robustly support the conclusions of a Spring-Summer time of death. During, Voeten, & Ahlberg claim that the

osteohistological slides, fish growth, and isotope data fail to indicate the season of death, however those are all thoroughly discussed and explained in the DePalma et al., 2021 paper, including graphical explanations of the histological subdivisions laid down during favorable vs lean growth periods and showing that the fish died at some point during the favorable period (Spring-Summer). That assessment was also made by the UoM investigation, which found that *“the overall conclusions of the paper still stand”* even in absence of the isotopic data. system for personal reasons. As such, the manuscript of During, Voeten, & Ahlberg is not fit for publication and would not serve any useful benefit if that were to be published. Regardless, it can already be viewed via multiple other hyperlinks, removing any justification for adding yet another.

## [References]

The Reference portion of the manuscript submitted to *PeerJ* by During et al, with only 31 items in it, contains an error indicative of unprofessional editing of the manuscript. References #20 (Lines 320-323) and #22 (Lines 329 – 332) are identical and simply redundant

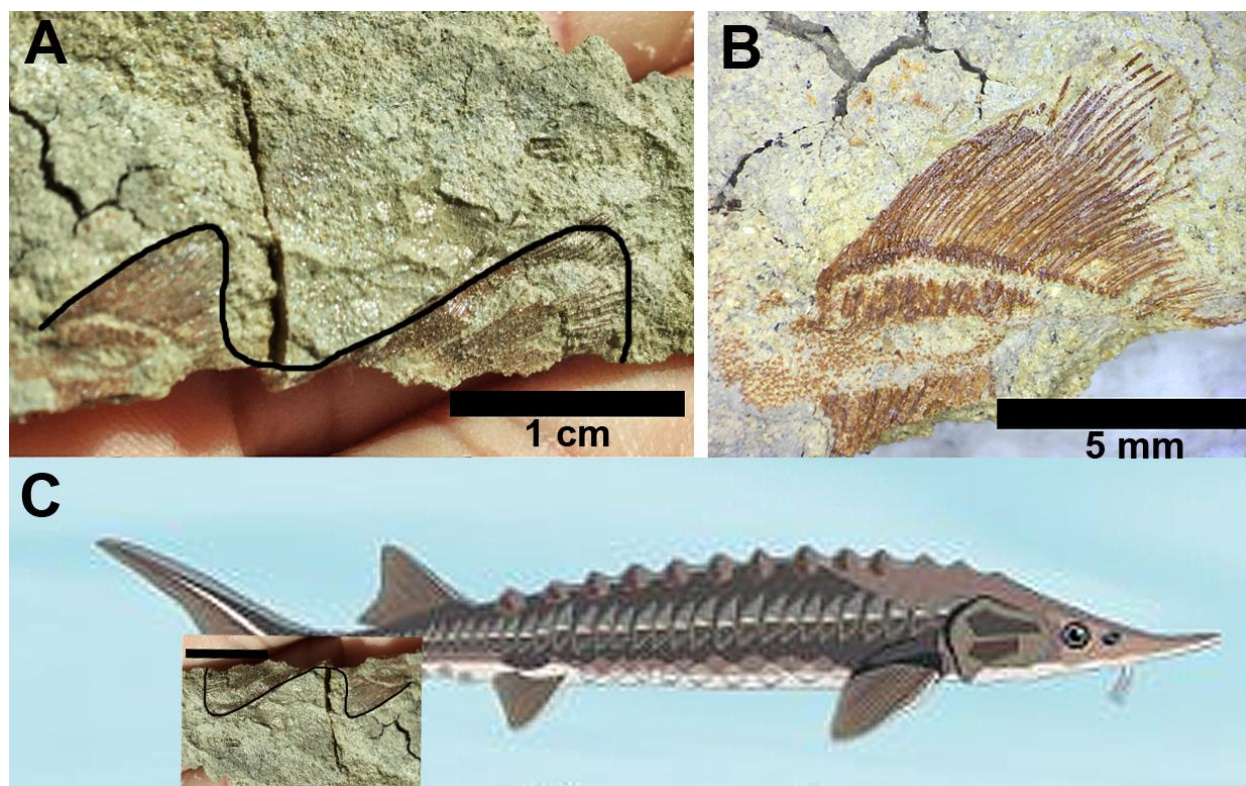
## Closing remarks

We reiterate that During, Voeten, & Ahlberg were fully aware of the answers of everything raised in the manuscript draft that they submitted to *PeerJ*, that the points have been redundantly belabored time and again over various online formats, we note that During, Voeten, & Ahlberg claim that those points have already have been peer reviewed, and the contents of this manuscript have been previously addressed during a thorough, laborious, and robust year-long UoM investigation. As such the submission of this manuscript to *PeerJ* deviates from the pattern of altruistic scholarly duties and more closely aligns with a pattern of abuse of the journal system. This statements made by During, Voeten, & Ahlberg in their manuscript draft were presented to the journal in such a way as to be knowingly misleading because the authors had full prior knowledge that the information they presented was obsolete. They knowingly omitted any clarifications that would surely have altered the viability of their conclusions, and furthermore During, Voeten, & Ahlberg are fully aware of the official outcome of the UoM investigation, which addressed the claims that they here repeat. During, Voeten, & Ahlberg circumvented transparency by not disclosing their prior knowledge of the UoM investigation outcome when they submitted their draft to *PeerJ* because otherwise their critique would have been undermined. Omission of those facts goes beyond an honest lack in rigor and instead is a conscious concealment of key facts that would weaken or invalidate their argument. Every criticism except for comments on the size of fish had been previously incorporated into the UoM investigation that was prompted by During & Ahlberg and they have all been adjudicated. During, Voeten, and Ahlberg present their old complaints here, as if they are fresh ideas, knowing that they and their basis are now obsolete. The data provided by the authors in support of their criticisms is incomplete and does not reflect their full knowledge of the situation’s state of development. The study lacks both impact and novelty and instead is a repetition of prior-stated arguments that have already been investigated and addressed. There is no meaningful

replication of any prior work or concepts and this study does not provide any meaningful advance. We recommend that this manuscript and its contents are not fit for publication.

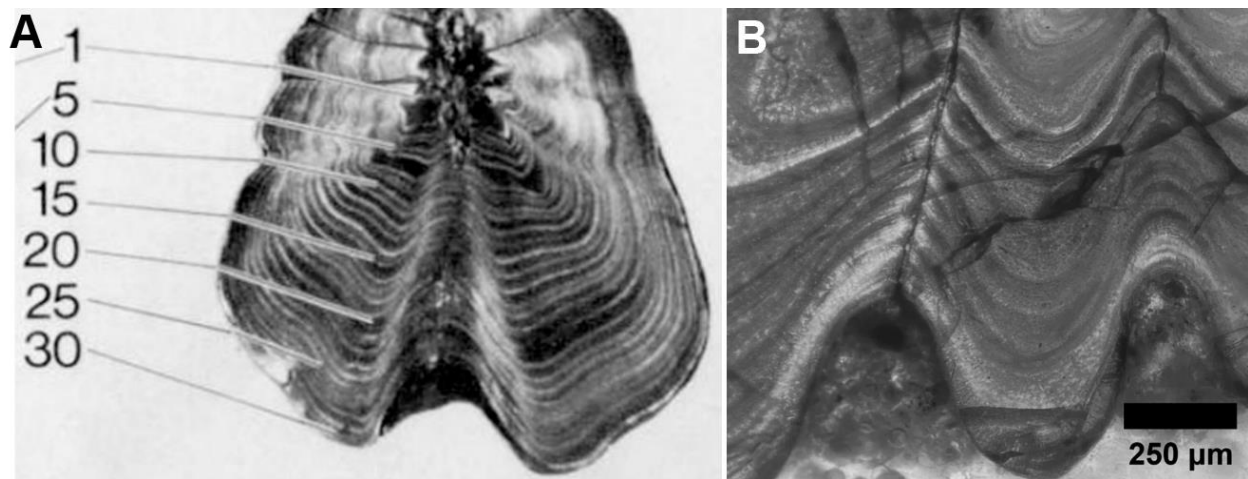
We have followed the proper procedure thus far in cooperation with our colleagues and the UoM investigation, we were found innocent of all allegations, including the ones that comprise the body of this manuscript draft, the lead author of DePalma et al., 2021, Robert DePalma, has already complied with the UoM disciplinary recommendations related to several instances of poor research practice related to challenges in properly handling the data of our late colleague (assessments that were not part of the 4 allegations by During & Ahlberg), and we continue to follow the proper procedure by coordinating with the journal to take any necessary clarifying steps. The manuscript submitted by During, Voeten, & Ahlberg, the contents of which have already been publicly circulated multiple times in multiple ways, serves no purpose in being published, represents an obsolete moment in the timeline, and would in fact potentially interrupt the process of completing our requisite tasks in conjunction with the journal.

**Figure 1.** A & B, a partial well-preserved body wall and fins from a sub-yearling acipenseriform fish with fresh breaks at the matrix edges, discovered in the debris pile of Melanie During in August 2017 during her ~10-day visit to the site. The fish, before unintentional destruction during excavation, would have been approximately 13-15 cm in length based on comparative body proportions (bottom).



**Figure 2.** Standard methodology to establish multi-year chronology in modern fish relies on counting the opaque and translucent growth band couplets (annuli) as shown in the thin section of a modern fish (A). The growth bands in the fossil specimens are equally well-resolved and robust (B), enabling equivalent

interpretation. A, from Brennan & Cailliet, 1989; B, from DePalma et al., 2021, sup mat figure 5. Image in (B) converted to greyscale for ease in comparison with (A).



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