

## **Note: Clarification of the Authorship of *Xixuthrus heros* (Coleoptera: Cerambycidae)**

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### **INTRODUCTION**

The authorship of the Fiji cerambycid beetle *Xixuthrus heros* (originally *Macrotoma heros*) described in 1868 (Gräffe, 1868; fig. 1) has long been attributed to Oswald Heer. The description, on p. 47 is labeled “*Macrotoma heros* Hr.” (Fig. 2) but there is no explanation of what surname the abbreviation “Hr.” stands for nor is there any explanation in the text of the article by Gräffe regarding who was responsible for the description. Since there is nothing in the work itself that explicitly indicates that Heer “published it in a way that satisfies the criteria of availability” (I.C.Z.N. *Code* Article 50.1 [I.C.Z.N., 1999]), the name should therefore be attributed to the author of the article in which it appeared, Eduard Gräffe. Additionally, Article 50.1.1 of the *Code* stipulates that in the case of a person other than the author of a work being responsible for validating the name, “If the identity of that other person is not explicit in the work itself, then the author is deemed to be the person who publishes the work.” In this case, there is nothing that explains what the abbreviation “Hr.” stands for, so again, Gräffe becomes the author.

### **THE INSECTS IN GRÄFFE’S “REISE”**

The story behind the actual circumstances leading to the publication of this beetle is worth recanting. Dohrn (1868) in a detailed treatise on the beetle a short while after the publication of the beetle by Gräffe, outlines the events that lead to the beetle being so labeled.

Carl August Dohrn (1806–1892) was a coleopterist, president of the Entomological Society in Stettin from 1843–1887 and, by 1868 had published over 60 scientific articles. In Dohrn (1868) he mentions that in late 1866 his son Heinrich Dohrn (malacologist and dermapterist) visited the Godeffroy Museum (for background on this Museum and its expeditions to the South Pacific, see Evenhuis, in press) and its curator, J.D.E. Schmeltz to discuss exotic beetles being sent to C.A. Dohrn for description, including the giant cerambycid from Fiji. By the Spring of 1867, C.A. Dohrn had received 3 male specimens of the giant beetle plus a immature in a cocoon [the last to be determined later as from another species of beetle]. He arranged for drawings to be made by a Mr. G. Schultz. In early 1868 Dohrn sent the completed drawings to Godeffroy for approval and they crossed in the mail with Gräffe’s booklet sent from Godeffroy to Dohrn. Dohrn was surprised to see the lithograph and description of *Macrotoma heros* and wrote to Schmeltz for an explanation.

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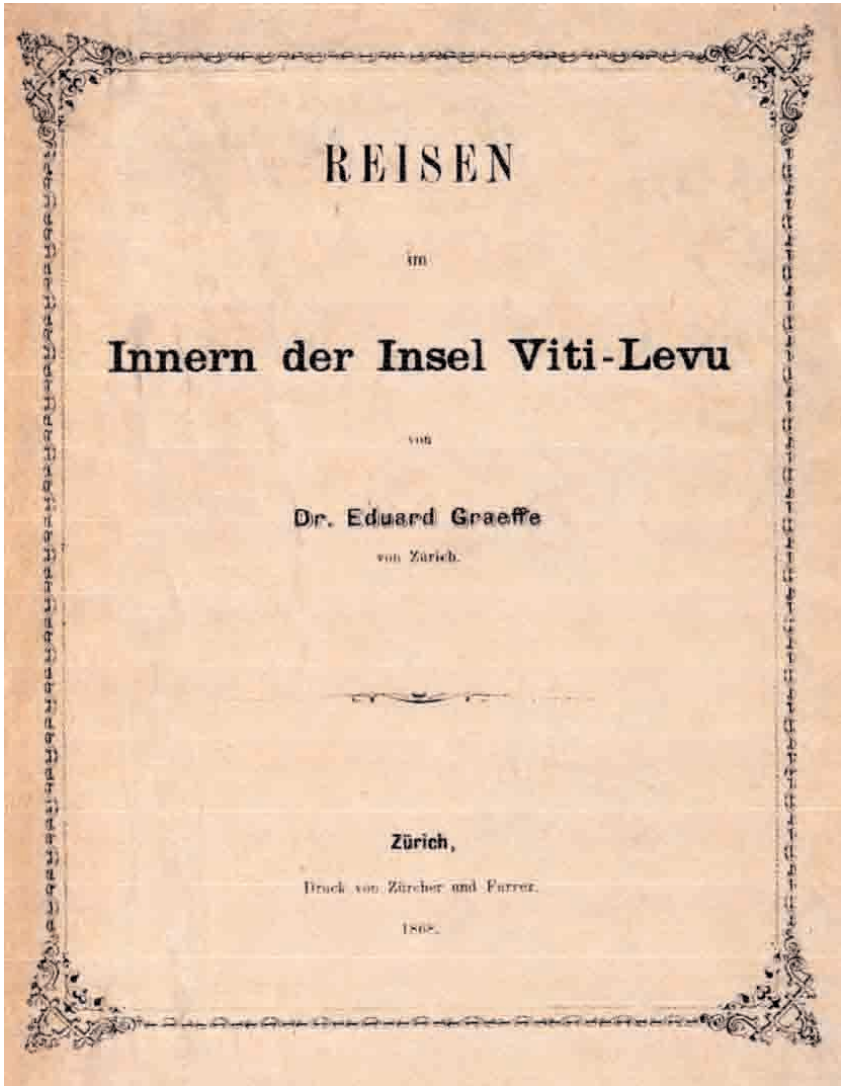


Figure 1. Title page of Gräffe's 1868 *Reise* booklet.

Schmeltz explained that it was the custom in Zürich that at the turn of the year, scientific societies published small works for general enlightenment and entertainment. The chairman of the publications committee, malacologist Albert Mousson, chose Gräffe's voyage into the interior of Viti Levu, Fiji for 1868. The insect plates were intended to give an idea of the fauna without any scientific intention. Since the plates needed textual explanation, Oswald Heer was given charge of the task.

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Longitudo.	maris.	feminae.
corporis	68—70 Mm.	105—116 Mm.
pronoti	4,5	6—6,5
mesonoti	13,5	20—21,5
alarum	18—20	10—12
femorum antic.	24	31—33
"    post.	18	23—25

Der Charakter der Species besteht in den angeführten Grössen-Verhältnissen und der derben Gestalt des Weibchens. Besonders hervorzuheben ist die zarte smaragdgrüne Färbung, welche beim Männchen ins Bräunlich-gelbe variirt. Während das lederartige Vorderfeld des Unterflügels die lichte smaragdgrüne Färbung des ganzen Thieres theilt, ist das zarte Hinterfeld in dem reinsten, intensiven Purpur gefärbt, mit jenem matten Sammet-Hauche, wie er nur auf den zarten Membranen der Hinterflügel einer Reihe von Phasmodeen Asiens und Australiens vorkommt.

Die Füsse sind nicht besonders scharfkantig und glatt, mit Ausnahme der Mittel- und Hinterschenkel, welche gegen die Spitze der äusseren Unterkante 3 bis 5 ganz kleine Sägezähne tragen.

Die Form der Genitalien ist bei der Charakteristik des Genus angegeben. Die relative Länge und Form jener Platten, aus welchen die Legescheide zusammengesetzt ist, bildet einen wesentlichen Charakter für die Eintheilung der Phasmodeen und ist daher für die Diagnose des Genus wichtig.

Die Eier gehören zu den tonnenförmigen, nicht gerippten, mit eingesetztem Deckel: ebenfalls ein Merkmal für grössere Gruppen-Eintheilung.

Von den Viti-Inseln stammt eine zweite Species, welche ich **Gr. minor** nenne und die durch die bedeutend kleineren Dimensionen, die schwächere Granulation des Mesonotum und die durchgehends gelblich-braune Färbung sich auszeichnet.

### Fig. 3. *Macrotoma heros* Hr.

Von den Viti-Inseln.

Dieser riesenhafte Bockkäfer gehört in die Familie der Prioniden, welche in Indien mehrere sehr grosse Arten, so den *Enoplocerus armillatus* L. sp., besitzt. Er stimmt in den meisten Merkmalen mit *Macrotoma* Serv. überein, weicht aber in dem an den Seiten gerundeten, fast halbmondförmigen Vorderrücken von den bekannten Arten ab und bildet so durch die abweichende Form der Brust eine besondere Gruppe unter den *Macrotomen*. Er hat eine Länge von 144 Millimeter; der Kopf ist 27 Mill. lang (die Oberkiefern 11 Mill.); der Vorderrücken 21 Mill. lang und 37 Mill. breit; beide Flügeldecken haben eine Breite von 45 Mill., ihre Länge beträgt 94 Mill. Die Oberkiefer sind auf der Innenseite stark gezahnt. Die Fühler von der Länge des Körpers, das erste Glied auswärts keulenförmig verdickt, das zweite sehr kurz, das dritte so lang als die zwei folgenden, das 3—8te Glied sind mit einer Reihe von Dornen besetzt. Der Vorderrücken ist am Grund fast grade abgeschnitten, an den Seiten der Art gerundet und nach vorn verschmälert, dass er fast halbmondförmig wird; die Seiten sind mit zahlreichen sehr geknöpften Dornen besetzt. Die Beine haben starke Schenkel, die wie die

Figure 2. Page 47 of Gräffe's *Reise* with the original description of *Macrotoma heros*.

When informed about the booklet, Gräffe's father, a mathematician in Zürich, wrote to Schmeltz about the insects. Schmeltz naively sent him a touched-up photograph of the cerambycid and other relevant things and said to make sure he contacted the people contracted by Godeffroy to do the descriptions, namely Brunner von Wattenvyl, Dohrn, Herrich-Schaeffer, and Schiner. Upon receiving the photograph from which to make the descriptions, Gräffe passed it on to Heer and failed to contact any of the listed authors

except fellow Swiss Brunner von Wattenwyl. So it became an all-Swiss endeavor.

The fact that Heer turns out to be the one who was given the task of preparing the explanation to the plate of insects explains why Brunner von Wattenwyl was mentioned as being responsible for the walking sticks that were described and Heer was not mentioned as responsible for anything. It also explains why the brief “Hr.” was used rather than the full surname. All the other new taxa were described by Heer himself so he figured it would be redundant to explain in his narrative that he was writing the remainder of the descriptions and no need to print out his name in full. With this evidence of the circumstances that took place in the publication of the Gräfte booklet, it is now apparent that even Heer got duped in this fiasco. To further the insult to Dohrn, Professor Mousson, in a rather cavalier response to an inquiry by Dohrn responded that he thought this all “eine wahre Lächerlichkeit erscheint” [“a truly laughable matter”].

It is a pity that Mousson as editor of the publication, did not see to it that proper credit was given to Heer for his contribution. This could easily have been done when checking the page proofs or even the manuscript itself. Heer probably thought a title with his name attached would appear somewhere in the work, but it did not. The unfortunate result is an innocent Eduard Gräfte became author of this beetle — as well as the author of the remainder of the new species (other than the phasmids) described in that explanation to the plate.

NB: An interesting side note is that since Heer did the description from a photograph (Dohrn had the only 3 known specimens at the time), the plate must now be considered an iconotype—a rare instance in zoology.

#### ACKNOWLEDGMENTS

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