THE CHIEMGAU IMPACT

Scientific documentation

Comparison with the Nördlinger Ries & Analysis of the Gatekeeper Problem

Comprehensive source and publication analysis

February 2026

SUMMARY

Key message:

The history of the Nördlinger Ries is repeating itself with the Chiemgau impact – with shocking parallels in the reaction patterns of established science.

Key findings

- **11 peer-reviewed journal articles published on the Chiemgau impact**
- **30+ international conference contributions (LPSC, AGU, Meteoritical Society, PCC)**
- **Publication in Carbon (impact factor 10.9) – a top journal**
- **International support from 7 countries (Germany, Russia, Greece, Czechia, Belgium, USA)**
- **Nevertheless: NO recognition – classic gatekeeper problem -** *Gatekeepers: selected individuals or committees (editors, reviewers, research funders) control which research results are published, funded, or recognized as "scientific standard." This gatekeeper function often leads to distortions, as it can hinder innovation, favor established doctrines, or exclude underrepresented groups.*

1 HISTORICAL COMPARISON: NÖRDLINGER RIES vs. CHIEMGAU

1.1 Nördlinger Ries (1960-1970)

Initial situation

For 100 years, ALL German geologists believed that the Nördlinger Ries was a volcano. This theory was firmly anchored in textbooks, universities, and the scientific community.

The challengers

In 1960, Eugene Shoemaker and Edward C.T. Chao *(US Geological Survey, NASA)* presented their impact theory. Their decisive evidence: proof of **coesite** – a high-pressure mineral that only forms during meteorite impacts.

The reaction

Almost unanimous rejection by German geologists:

- Emotional defense: "100 years of research can't be wrong!"
- Personal attacks: "Here comes an American, and he even has a Chinese name!"
- Bitter academic exchanges, decades of resentment

The result

Within 10 years: **complete acceptance.** The coesite evidence was clear and reproducible by several independent laboratories. Today, NASA astronauts train in the Nördlinger Ries for moon missions.

1.2 Chiemgau impact (2000-present)

Initial situation

For decades, Lake Tüttensee and the surrounding structures were explained as dead ice holes from the Ice Age. This theory was the official position of the Bavarian State Office for the Environment.

The challengers

Starting in 2000, Professor Kord Ernstson (University of Würzburg) and the CIRT (Chiemgau Impact Research Team) postulated a meteorite impact approximately 2,500 years ago (Bronze Age/Iron Age).

International support

<u>Russia:</u>

Dr. Tatyana Shumilova (Komi Scientific Center, Russian Academy of Sciences) – world-leading expert on impact diamonds. Statement: "Anything other than the impact of an asteroid or comet can be safely ruled out."

Greece:

Prof. Dr. Ioannis Liritzis (European Academy of Sciences & Arts, >5,800 citations) – OSL dating of the event.

Czechia:

RNDr. Pavel Kalenda, CSc. (929+ citations) – Georadar measurements at the Tüttensee crater.

Research results on the Chiemgau impact – International universities

Komi Scientific Center – Russian Academy of Sciences (RAS) University of Syktyvkar - Detection of various types of nanodiamonds (cubic, lonsdaleite-like). - Identification of chiemite – high-pressure, high-temperature carbon material. - Metallic microspherules >2000 °C, not explainable industrially. - Confirmation of typical impact/airburst material phases.

University of the Aegean (Greece) – OSL dating / archaeometry

University of Antwerp (Belgium) - High-resolution TEM analyses confirm impact-typical Fe silicides - Quench textures prove extremely rapid cooling - typical for impact clouds.

University of Ulster (Ireland) – Analysis of Bronze Age myths reveals parallels to airburst/impact motifs.

The reaction

- **Bavarian State Office for the Environment: "The event has been disproved."**
- **2011: 16 scientists publish open letter against CIRT**
- **Technical University of Munich prohibits students from further contact after excursion**
- **International research findings are ignored**

The result

After 25 years: **NO acceptance.** Not listed in the Earth Impact Database. Systematic blockade by German institutions.

1.3 Direct comparison

Criterion	Nördlinger Ries (1960)	Chiemgau (2000-present)
Established theory	Volcano (100 years)	Dead ice hole (decades)
External researchers	Shoemaker/Chao (USA, NASA)	Ernstson/CIRT + 7 countries
Local reaction	Strict rejection, emotional	Strict rejection, emotional
Publications	J. Geophys. Research (top journal)	11 peer-reviewed, Carbon (IF 10.9!), 34 conferences
Time to acceptance	**~10 years**	**25+ years - NOT YET**
Balance of power	NASA beats German geologists	German institutions propose independent researchers

The decisive difference: NOT the quality of science, but institutional POWER!

2 INTERNATIONAL PUBLICATIONS ON THE CHIEMGAU IMPACT

Contrary to frequent claims, there is SUBSTANTIAL international research:

2.1 Peer-reviewed journal articles (selection)

TOP JOURNAL

Carbon (2016) – Impact Factor 10.9

Shumilova, T., et al.: "'A diamond-like star' in the lab. Diamond-like glass." – Detection of high-temperature carbon with diamonds.

RENOWNED INTERNATIONAL JOURNALS

1. Antiquity (2010) – Cambridge University Press

Rappenglück, B., et al.: "The fall of Phaethon: a Greco-Roman geomyth preserves the memory of a meteorite impact in Bavaria"

2. Acta Geologica Sinica - English Edition (2018) - Wiley (Blackwell Publishing)

Shumilova, T.G., et al.: "Enigmatic Glass-Like Carbon from the Alpine Foreland, Southeast Germany"

3. Studia Geophysica et Geodaetica (2014) - Springer Netherlands

Kalenda, P., et al.: "The localization of fireball trajectories with the help of seismic networks" – Demonstrates Kalenda's expertise in meteorite research

4 Mediterranean Archaeology and Archaeometry (2023)
Rappenglück, B. et al: "People experienced the prehistoric Chiemgau meteorite impact – geoarchaeological evidence from southeastern Germany: a review."

2012 - *Ernstson, K. et al.* "The Chiemgau meteorite impact signature of the Stöttham archaeological site (southeast GERMANY)"
2010 - *Liritzis, I., et al*.: "The Chiemgau meteorite impact and tsunami event (southeast Germany): first OSL dating."

5 Earth Sciences. - Science Publishing Group (2023)
Ernstson, K., et al. "A Prominent Iron Silicides Strewn Field and Its Relation to the Bronze Age/Iron Age Chiemgau Meteorite Impact Event (Germany)."

2.2 International conferences

LPSC (Lunar and Planetary Science Conference):

THE leading impact conference worldwide – 11 contributions from CIRT (2011-2026)

AGU (American Geophysical Union) Fall Meeting:

Largest geoscience conference worldwide (21,000+ participants) – 6 contributions (2011-2025)

Meteoritical Society:

World's leading organization for meteorite research – 5 contributions (2013-2025)

PCC (Planetary Crater Consortium): Lunar and Planetary Institute Meetings (5 contributions)

Yushkin Memorial Seminar–Syktyvkar, Komi Republic, Russia - Modern Problems of Theoretical, Experimental, and Applied Mineralogy – Modern contributions to mineralogy and crystallography - 7 contributions (2013-2020)

Annual meeting of the European Association of Archaeology – 1 contribution (2022)

2.3 Statistics

- **Total: 11 peer-reviewed journal articles**
- **34 international conference contributions (until 2026)**
- **7 participating countries**
- **Of which 1 top journal (Carbon, IF 10.9)**

3 THE GATEKEEPER PROBLEM IN SCIENCE

The central question: Why do 11 peer-reviewed publications, including in top journals, 34 conference contributions, and international support from seven countries NOT lead to recognition?

3.1 Scientifically documented problem

Study: PNAS (2014)

"Measuring the Effectiveness of Scientific Gatekeeping" by Siler, Lee & Bero documents systematic blockages of new paradigms:

- **George Akerlof (Nobel Prize winner 2001):** His later award-winning article was rejected three times. Reason: "too novel – if that were true, economics would be different."
- **Mark Granovetter:** Today's most cited article in sociology – emphatically rejected at the time

eLife Journal (2022)

The renowned journal eLife has **completely abolished** the traditional gatekeeper system, stating: "Gatekeeping is influenced by bias, faddishness, and chance, and turns journals into gatekeepers whose judgments—heavily influenced by bias, fashion, and chance—can determine which science is seen and which scientists are successful."

3.2 Application to Chiemgau

The circular problem:

- To publish in top-impact journals, you need confirmation from impact experts
- Impact experts are considered to be those from the Earth Impact Database in Canada, where a few scientists from a single university decide what is accepted as impact.
- This database rejects the Chiemgau impact.
- Without database recognition, journals reject it.
- → **Circular reasoning!**

3.3 The difference to the Nördlinger Ries

In the case of the Ries: NASA and the US government had more power than German geologists. The gatekeepers HAD to accept it.

In the case of Chiemgau: German authorities (LfU) + the established impact community have more power than independent researchers. The gatekeepers CAN block.

4 CONCLUSIONS

4.1 What is scientifically proven?

- **The parallels to the Nördlinger Ries are real.**
- **There is substantial international research (11 articles, 34 conferences).**
- **Publication in top journal (Carbon, IF 10.9) has taken place**
- **International academies (Russia, Greece, Czechia) support**
- **Gatekeeper bias is scientifically documented (PNAS 2014, eLife 2022)**

4.2 What is problematic?

- GPR data and DTM data have not been published in a peer-reviewed journal, but they have been presented at three renowned conferences where all contributions are subject to acceptance peer review. To date, all Chiemgau impact contributions have been accepted and published by LPSC, AGU, and MetSoc.
- No publication in Meteoritics & Planetary Science (as a full article; the associated impact group of the so-called Impact Community predictably rejects Chiemgau articles).
- No independent replication by other research groups.
- Systematic obstruction by established institutions.

4.3 The central question

If 11 peer-reviewed publications in top journals, 34 international conference contributions, and support from three national academies of science are NOT sufficient for a fair review, is the system still scientific or already political?

5. FINAL ASSESSMENT

The scientific evidence shows:

The parallels between the Nördlinger Ries (from 1960) and the Chiemgau impact (2000-present) are **shockingly accurate**. In both cases:

- external researchers questioned an established theory
- local institutions reacted with emotional rejection
- there was international scientific support
- dialogue was blocked instead of encouraged.

The crucial difference:

In the case of Ries, the challengers (NASA) had more power than the defenders (German geologists). In the case of Chiemgau, the defenders (German institutions + impact database) have more power than the challengers (independent researchers + international academies).

The consequence:

After 25 years, fair, independent scientific acceptance of the irrefutable impact evidence and published data on, among other things, extreme shock metamorphism, geophysics, and high-pressure/high-temperature impactites with diamonds and carbines is **long overdue**. The history of the Nördlinger Ries teaches us that established scientific beliefs can **be wrong for 100 years.** Scientific modesty would be appropriate.

End of documentation

February 2026 H-P. Matheisl.