



## International Union of Geological Sciences (IUGS), Initiative on Forensic Geology (IFG) Monthly Update and Information for IUGS E-Bulletin, January 2025

### Training in Search, College of Policing, Police National Search Centre (PNSC), UK

On 7-8 January 2025, Dr Laurance Donnelly (Chair, IUGS-IFG) was invited to provide search training for the UK College of Policing, PNSC. The training focused on environmental factors whilst searching for clandestine graves and human remains. The training delivered by Laurance was on, '*Searching for Clandestine Graves and Human Remains, Environmental Factors: The Geoforensic Search Strategy (GSS)*'. Other subject matter experts focused on; (i) operational police searches, (ii) forensic archeology, (iii) forensic oceanography and water searches, (iii) forensic botany, and (iv) forensic anthropology. The training was attended by the UK police and military.

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Police National Search Centre Ryton  
Searching for Clandestine Graves and Human Remains  
CPD Event 7<sup>th</sup> – 8<sup>th</sup> January 2025



*IUGS-IFG supported search training, College of Policing, Police National Search Centre (PNSC), UK, (Photo: PNSC).*

### INTERPOL Illegal Mining Team. Press Release

**Operation highlights the human and environmental impact of illegal mining in Western Africa: Four-country operation seizes chemicals, explosives, drugs and pain relief medication used by illegal miners**

Dr Laurance Donnelly (Chair, IUGS-IFG) has been collaborating with INTERPOL's illegal mining team. Please find below a press release issued by INTERPOL on 14 January 2025, 11:00am.



#### INTERPOL MEDIA RELEASE

LYON, France – An operation targeting illegal mining in Burkina Faso, the Gambia, Guinea and Senegal has led to the arrest of 200 people.

Operation Sanu (July–October 2024) brought together experts from INTERPOL and national law enforcement agencies to combat illegal mining and associated crimes, with hundreds of officers deployed to identify criminal routes and modus operandi in remote and isolated areas of the four countries.

The cross-border collaboration led to the seizure of significant amounts of chemicals and equipment used in illegal mining: 150 kgs of cyanide, 325 kgs of active charcoal, 14 cylinders of mercury with an estimated value of over USD 100,000, 20 litres of nitrite acid, and two 57-litre containers of sulfuric acid. 10 kilogramme of cocaine and almost 7,000 explosive devices were also seized.

Underlining the human cost of illegal mining, the operations team also seized large quantities of opioid pain relief tablets, commonly used by miners in the region to alleviate the pain caused by the use of chemicals such as mercury and cyanide in illicit small-scale gold mining. These chemicals can have serious toxic effects on the human nervous system.

The operation also gave INTERPOL and the law enforcement officers and prosecutors involved new insights into the wider damage caused by illegal mining in the region – from deforestation to landslides and the deviation of river flows leading to drought or flooding – as well as its impact on economies and communities in the region.

Source: Dr Laurance Donnelly, Chair IUGS-IFG



INTERPOL Secretary General Valdecy Urquiza said: “*Transnational criminal networks exploit mineral resources around the world, harming the environment, hurting national economies, weakening fragile communities, and endangering public health and safety. The operation’s success highlights the effectiveness of law enforcement when they join forces to tackle these threats.*”

### **A first in the fight against illegal sand mining**

Although the central focus of the operation was illegal gold mining, it also targeted illegal sand mining in the Gambia, with raids in several locations in the Kombo and south coastal belt region, leading to seven arrests and the seizure of mining equipment and trucks loaded with sand and gravel. The operation was a first for this type of action in the Gambia and was also an opportunity for the authorities to gain a clearer understanding of how this illegal extraction and trade is organized. Illegal sand mining has recorded unprecedented levels in recent years and is a major threat to the environment and to the livelihoods and living conditions of local communities.

Operation Sanu is part of a pilot project designed to support law enforcement agencies in their efforts to tackle the complex and multifaceted issues arising from illegal mining activities in Western and Central Africa.

Operation Sanu was carried out by INTERPOL’s Environmental Security Programme with funding by the United Kingdom’s Home Office.

Participating countries: Burkina Faso, the Gambia, Guinea, Senegal



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### **The Organization of Scientific Area (OSAC) Updates**

[OSAC](#) for Forensic Science is a United States Government sponsored organization that aims to strengthen the use of forensic science by facilitating the development of technically sound standards, expanding the [OSAC Registry](#) with standards that have completed a technical assessment, and promoting the implementation of those standards by OSAC’s stakeholders and the forensic science community. The following two items of interest to the forensic geology community were announced in the [January 2025 OSAC Standards Bulletin](#).

1. OSAC seeking public comment on a draft standard [OSAC 2025-S-0011, Standard Practice for Polarized Light Microscopy in the Forensic Examination and Comparison of Soils](#). This draft is being considered for submission to Standards Development Organization (SDO), ASTM International. At this time OSAC seeks comment to revise this document and may, if approved, be placed on the OSAC Registry as an “OSAC Proposed Standard.” OSAC welcomes comments on whether the current drafts are suitable for release to the SDO and suggestions for improvements in content and wording. To be considered, comments must be placed in the [OSAC Comment Form](#) and sent to [comments@nist.gov](mailto:comments@nist.gov) by 11:59 p.m. ET on February 3, 2025. If you miss this deadline, but still wish to comment on this document, please contact Libby Stern at [LStern@fbi.gov](mailto:LStern@fbi.gov).
2. “[OSAC 2024-S-0012, Standard Practice for the Forensic Analysis of Geological Materials by Scanning Electron Microscopy and Energy Dispersive X-Ray Spectrometry](#)” has been posted to the [OSAC Registry](#) as an “OSAC Proposed Standard.” This document will be now sent to ASTM International for further review and refinement. If you have any comments or suggestions about this proposed standard, please reach out to Libby Stern at [LStern@fbi.gov](mailto:LStern@fbi.gov), or to other members of ASTM International E30 committee on forensic sciences.

### **The European Association of Geoscientists and Engineers (EAGE), Near Surface Geophysics conference, Naples, Italy, 7-11 September, 2025**

Prof Pier Matteo Barone (Crime Scene Advisor, IUGS-IFG) will represent IUGS-IFG at the EAGE conference in Naples, in September 2025. Supportive information will be provided by Rosa Maria Di Maggio (Regional Representative for Europe, IUGS-IFG) and Dr Lorraine Donnelly (Chair, IUGS-IFG).

<https://eagensg.org/location-venue/>

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