Subject: Serious Scientific Concerns Regarding Use of the Rustici Case to Justify a Kratom Ban

Chair, Vice Chair, and Members of the Committee,

[redacted]

I am writing to express serious scientific concerns regarding the use of the **Bonneville County case of Kielee Rustici** as justification for proposed legislation banning kratom in Idaho. I have reviewed the full coroner's report, including the investigative narrative, autopsy findings, and toxicology results. Based on that review, I believe the conclusions being presented to lawmakers are **not supported by the evidence in the report itself**.

Incomplete Toxicology Cannot Support a Finding of Acute Mitragynine Intoxication

Multiple prescription medications were documented at the scene, including trazodone, sertraline, lamotrigine, and cyclobenzaprine. However, the toxicology panel tested only three substances: mitragynine, sertraline, and desmethylsertraline.

Notably:

- **Trazodone was not tested**, despite multiple bottles being present.
- No testing was performed for muscle relaxants, benzodiazepines, opioids, alcohol, or over the counter sedatives.
- No screening was conducted for adulterants or contaminants.

When the majority of relevant substances are not tested, attribution of death to a single compound is scientifically unsupported.

Relevant pharmacologic interactions that were not evaluated

- **Sertraline + trazodone**
  Both medications increase serotonergic activity and can contribute to **sedation**, **orthostatic intolerance**, and **impaired alertness**. Trazodone is commonly associated with **syncope**, particularly in individuals with POTS or autonomic dysfunction. Because trazodone was not tested, its contribution cannot be ruled out.
- **Sertraline + cyclobenzaprine**
  Cyclobenzaprine is structurally similar to tricyclic antidepressants and has **sedating**, **anticholinergic**, and **cardiotoxic** properties. Combined with

sertraline, it can increase the risk of **central nervous system depression** and **postural instability**. Cyclobenzaprine was not included in the toxicology panel.

- **Sertraline + underlying autonomic disorders (POTS, EhlersDanlos)**
  Sertraline can affect heart rate and blood pressure regulation. In individuals with POTS or connectivetissue disorders affecting autonomic tone, these effects may increase susceptibility to **syncope**, **collapse**, or **inability to reposition after falling**.
- **Combined sedative burden**
  The presence of multiple sedating medications—whether taken as prescribed or not—creates a **cumulative sedative load**. Without testing trazodone or cyclobenzaprine, the total sedative burden cannot be assessed.

Significant Medical Conditions Were Not Meaningfully Considered

The report documents that Ms. Rustici had multiple medical conditions that independently increase the risk of sudden collapse, including:

- Postural Orthostatic Tachycardia Syndrome (POTS)
- EhlersDanlos syndrome
- Autoimmune disease
- A **Chiari I malformation discovered on autopsy**

These conditions are wellknown to be associated with syncope, drop attacks, impaired autonomic control, cervical instability, and compromised respiratory drive. Ms. Rustici was found **prone, with her neck sharply flexed at approximately 90 degrees against a dresser**, a position that can exacerbate brainstem compression in individuals with Chiari I malformation.

These physiological risk factors were not incorporated into the causeofdeath reasoning.

Scene Findings Are Consistent with Collapse and Delayed Discovery, Not Overdose

The coroner's own narrative describes the scene as "*as if she fainted and asphyxiated*." Ms. Rustici was found:

- Face down
- With arms tucked beneath her chest
- Partially wrapped in a blanket
- In a cold room with the thermostat reportedly set to zero

There were **no findings typically associated with drug overdose**, including no pulmonary edema, no frothing, no petechiae, and no traumatic injury.

Unresolved Timeline Discrepancies and Absence of an Estimated Time of Death

Accurate determination of cause of death depends on reliable lastknownalive information. In this case, the decedent's sister later **admitted that she did not check on Ms. Rustici the day prior to discovery**, despite having told their grandmother that she had done so.

This establishes that the lastknownalive timeline provided to family members was inaccurate. The investigative report does not document reconciliation of this discrepancy and **does not provide an estimated time of death**.

Without a reliable timeline, it is not possible to assess:

- Duration of prone positioning
- Contribution of environmental exposure
- Whether delayed discovery following a medical collapse contributed to the outcome

These uncertainties alone preclude confident attribution of causation to a single substance.

Postmortem Toxicology Levels Cannot Be Reliably Interpreted Without TimeofDeath Context

The absence of an estimated time of death also critically limits interpretation of the reported mitragynine level. Mitragynine is a lipophilic compound with extensive tissue distribution. Substances with these properties may undergo **postmortem redistribution**, in which compounds diffuse from tissues back into the circulatory system as cellular integrity breaks down after death.

This process can result in postmortem blood concentrations that **do not reflect levels present at the time of collapse**. Without a documented time of death or reliable lastknownalive determination, it is not possible to assess the extent to which postmortem redistribution may have influenced the measured concentration. As a result, the reported level cannot be reliably interpreted as evidence of acute intoxication or causation.

Investigative Prejudgment Further Undermines Confidence in the Conclusion

The coroner's report documents a statement to the family that "*the substance should be removed from stores*," referring to kratom. This statement was made **before the autopsy was finalized and before toxicology was complete**.

When conclusions about public safety are expressed prior to completion of testing, it raises concern that kratom was treated as a presumed cause rather than as one of several hypotheses to be evaluated through neutral investigation. Scientific determinations must follow evidence—not precede it.

Policy Should Be Based on Evidence, Not Incomplete or Unreliable Conclusions

There is:

- No established lethal mechanism for mitragynine in humans
- No validated toxic range
- No reliable correlation between postmortem levels and cause of death

National surveillance data and federally supported human studies consistently show that serious outcomes associated with kratom are uncommon and overwhelmingly involve polysubstance exposure.

This case, built on incomplete toxicology, unexamined medical vulnerability, an unreliable timeline, and acknowledged investigative prejudgment, does not meet the evidentiary standard required to support a statewide ban.

Closing

The Rustici case is tragic. However, tragedy does not justify policy built on incomplete information or unsupported scientific conclusions. Idaho deserves legislation grounded in evidence, scientific integrity, and public health—not assumptions.

Thank you for your time and careful consideration.