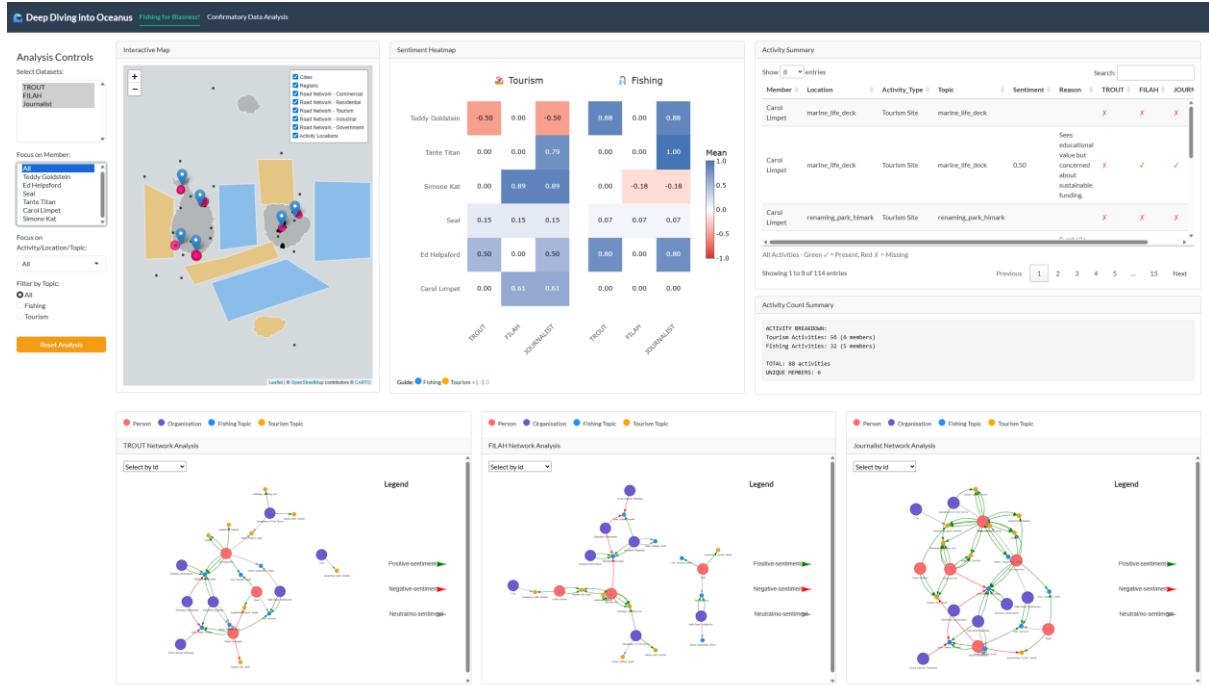


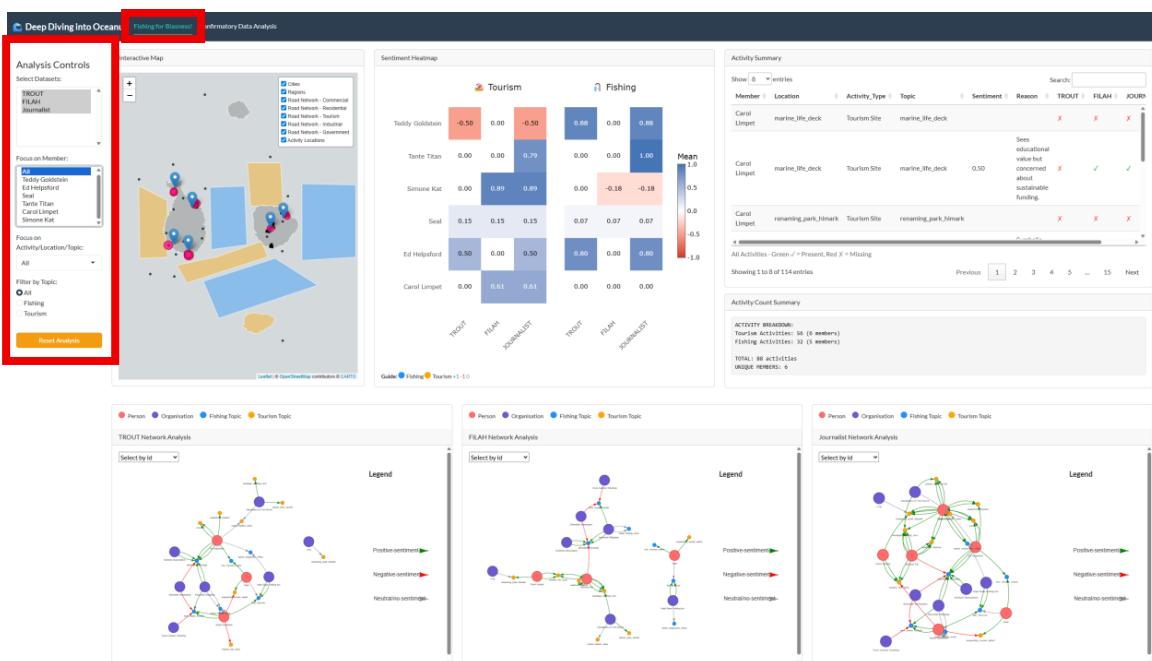
## User Guide – Deep Diving into Oceanus – Fishing for Biasness!

### 1. Introduction

This guide explains how to navigate and interpret the two tabs of the Shinee application, Fishing for Biasness and Confirmatory Data Analysis, as well as the controls and visualisations within each tab.



### 2. Fishing for Biasness – Main Dashboard



#### a. Analysis Controls panel

Located on the far left, this panel filters every visual on the page.

### b. Select Datasets

Choose one or more primary sources (TROUT, FILAH, Journalist). Holding Control (CTRL) while clicking allows multiple selections.

### c. Focus on Member

Highlight a single board member, for example Teddy Goldstein or Seal, or keep "All" to include everyone.

### d. Focus on Activity, Location or Topic

Narrow the analysis to a specific entity or keep "All" for a holistic view.

### e. Filter by Topic

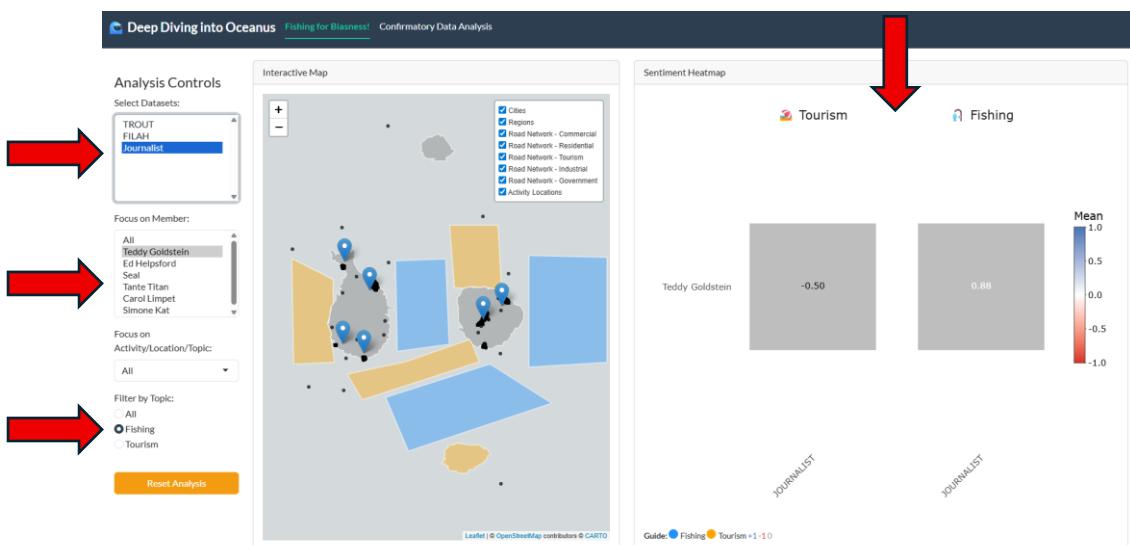
Radio buttons restrict content to Fishing, Tourism or both.

### f. Reset Analysis

Clears every filter and returns the dashboard to its initial state.

## 3. Sentiment Heatmap

The heatmap summarises mean sentiment scores for each board member across the selected datasets. It offers an immediate comparison of attitudes towards tourism and fishing topics.



### a) Structure

Rows list board members alphabetically. Columns are grouped by dataset labels (TROUT, FILAH, JOURNALIST), each split into tourism and fishing sentiment cells. Cell values are numeric means on a scale from -1 to +1, shown on the bar at the right-hand side.

### b) Colour encoding

Positive sentiment appears in graduated blues, deeper tones indicate stronger approval. Negative sentiment appears in graduated reds. Zero or missing values remain white, signalling neutrality or absence of evidence. Icons above the matrix act as keys for tourism (orange buoy) and fishing (blue hook).

### c) Interactivity

Any change in the Analysis Controls panel recalculates the matrix in real time. Choosing a single name in Focus on Member highlights that row for quick cross-dataset comparison. The Filter by Topic radio buttons regenerate the matrix with the selected subset only.

### d) Contextual example (current selections)

With dataset = Journalist, member = Teddy Goldstein and topic = Fishing selected, the matrix shrinks to a single row.

## 4. Activity Summary Table



### a) Structure

Rows represent individual messages that satisfy the current filters.

Column headers appear in the following order.

- *Member* – sender or speaker
- *Location* – physical site or vessel where the message was logged
- *Activity\_Type* – coded description of the encounter, for example Fishing Site or Tourism Site
- *Topic* – specific subject tag such as fish\_vacuum or marine\_life\_deck
- *Sentiment* – numeric score on a -1 to +1 scale
- *Reason* – short text excerpt that justifies the sentiment tag
- *TROUT, FILAH, JOURNALIST* – presence flags, a green tick if the record exists in that dataset, a red cross if it is absent.

### b) Interactivity

Any adjustment in the Analysis Controls panel refreshes the table instantly. Column headers can be clicked to sort, the search box filters rows by keyword and the paginator moves through longer lists.

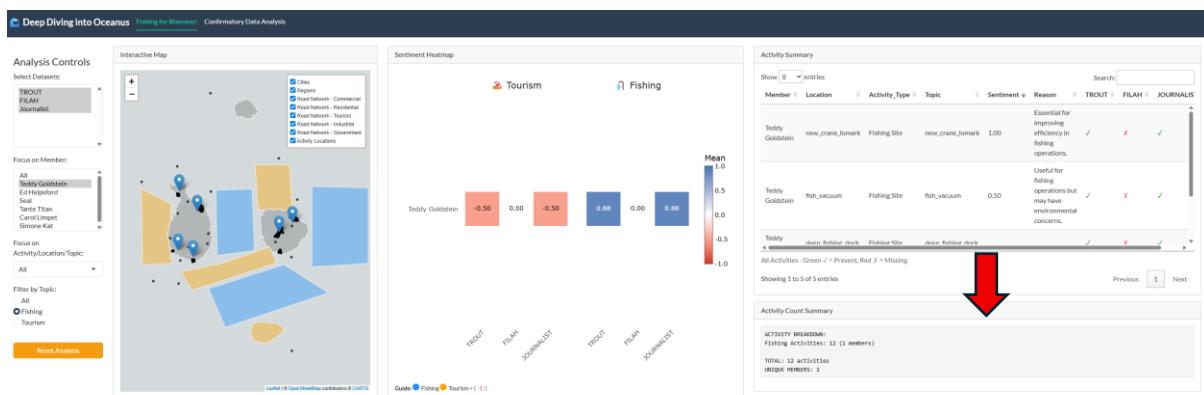
### c) Reading the table

Scan the Sentiment column to identify extreme values, then consult Reason to understand context. Compare the three presence flags to uncover systematic omissions that may point to selective reporting. Use the search field for quick focus on a location or equipment term before cross checking in the network view.

### d) Contextual example (current selections)

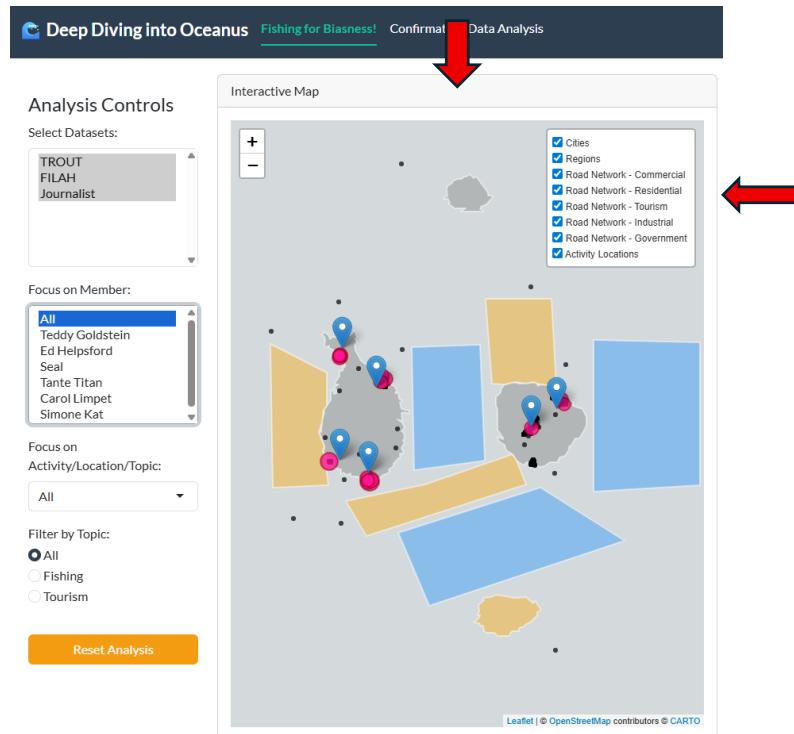
- With datasets = TROUT, FILAH, Journalist, member = Teddy Goldstein and topic = Fishing, the table contracts to five rows.
- The first entry, on new\_crane\_lomark, records a strongly positive sentiment of +1.00 and appears in TROUT and the Journalist but is missing from FILAH.
- The second entry, on fish\_vacuum, shows a moderate +0.50 and is likewise absent from FILAH.

## 5. Activity Count Summary



This panel aggregates the rows currently shown in the Activity Summary table, listing the number of activities per topic, the overall activity total, and the count of unique members. It updates instantly with every filter change and acts as a quick validation that the selection criteria are behaving as expected.

## 6. Interactive Map



### a) Structure

A Leaflet map shows Oceanus with optional layers for cities, regions, road nodes and activity locations, all controlled by the tick-box list in the top right corner.

### b) Colour key

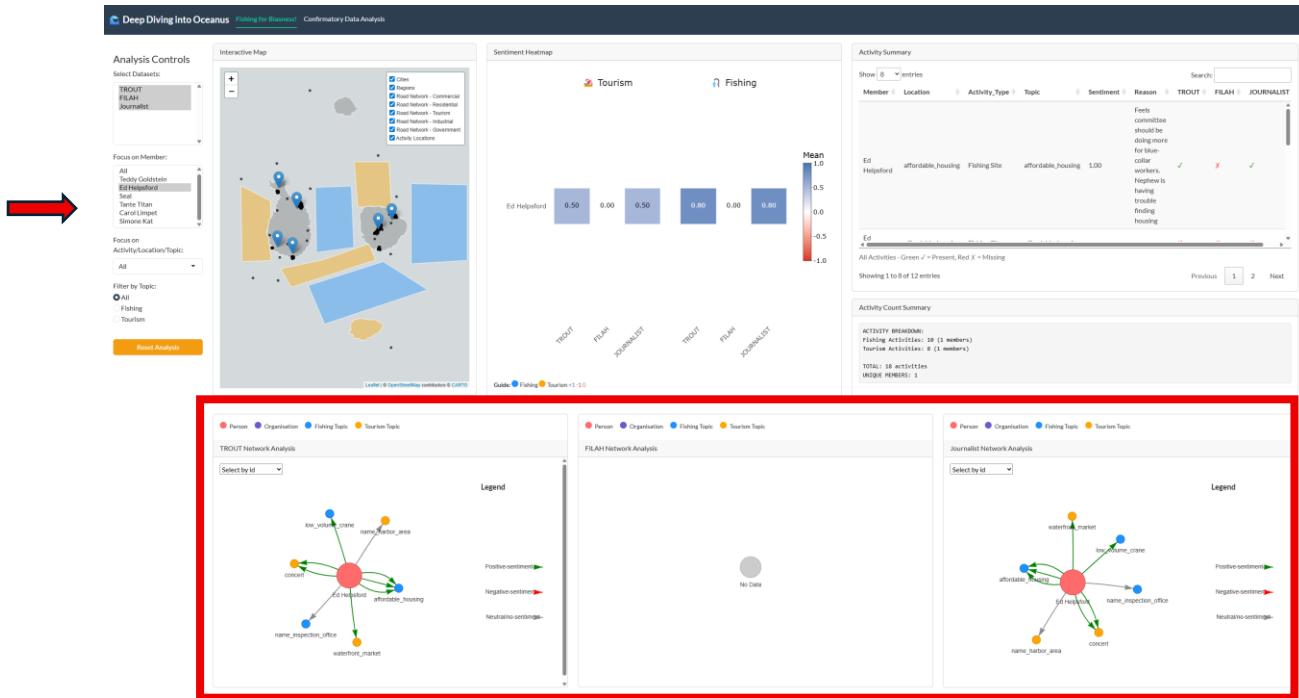
- Blue pushpins = reference cities.
- Blue zone = fishing sites.
- Yellow zone = tourism sites.
- Dark-red circles = other recorded sites.
- Small black dots = road nodes for context.

### c) Layer checkboxes

The small panel lets you show or hide eight overlay groups:

- Cities – six blue pushpins for geographic reference.
- Regions – coloured polygons that shade each island by its recorded activity type.
- Road Network – Commercial / Residential / Tourism / Industrial / Government – black dots coloured by zone, useful for infrastructure context.
- Activity Locations – the blue, orange or red zones that mark fishing, tourism or other sites.

## 7. Network Analysis Panels



### a) Structure

Three side-by-side diagrams visualise relationships in the TROUT, FILAH and Journalist datasets.

- Nodes are coloured by type, pink for person, purple for organisation, blue for fishing topic and orange for tourism topic.
- Arrow colours encode sentiment, green positive, red negative and grey neutral.
- Each panel has a Select by id drop-down that highlights a chosen node and fades others for easier inspection.

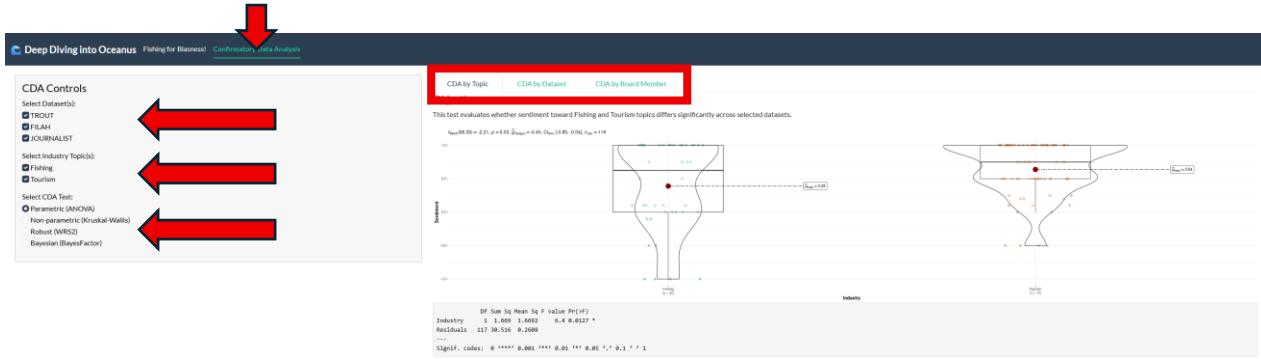
### b) Interactivity

Selecting a node in any diagram, or from the drop-down, also flashes the same entity on the other two diagrams, the map and the activity table. If the selected entity does not exist in a dataset the corresponding panel collapses to “No Data”, making gaps immediately visible.

### c) Contextual example

With Ed Helpsford chosen in the Analysis Controls, the TROUT and Journalist diagrams show him at the centre of several positive (green) exchanges about affordable housing and low-volume cranes. The FILAH panel displays “No Data”, meaning FILAH does not record any interactions involving Ed Helpsford.

## 8. Confirmatory Data Analysis (CDA) tab



### a) CDA Controls panel

On the left, a fixed sidebar lets you:

- Select which datasets to include,
- Select which industry topics (Fishing, Tourism) to test,
- Select the statistical approach, Parametric ANOVA, Kruskal Wallis, WRS2 robust or Bayesian.

### b) Three analysis tabs

- **CDA by Topic** compares sentiment for Fishing against Tourism across the chosen datasets.
- **CDA by Dataset** checks whether sentiment distributions differ among TROUT, FILAH and Journalist for the selected topic set.
- **CDA by Board Member** focuses on a single committee member and contrasts their Fishing versus Tourism sentiment aggregated over all datasets.

Each tab shows a violin-plus-box plot, the test output and a brief interpretation line, updating instantly when you adjust the controls.

## 9. CDA by Topic



### a. Purpose

Tests whether mean sentiment towards Fishing and Tourism differs across the datasets ticked in the sidebar.

### b. Display

- A combined violin and box plot shows the distribution of sentiment scores for Fishing on the left and Tourism on the right.
- The small red dot marks the group mean, the dashed line reports its value.
- The grey box below the figure displays the full statistical test output from R, including the p-value, which indicates whether the difference in mean sentiment values is statistically significant.

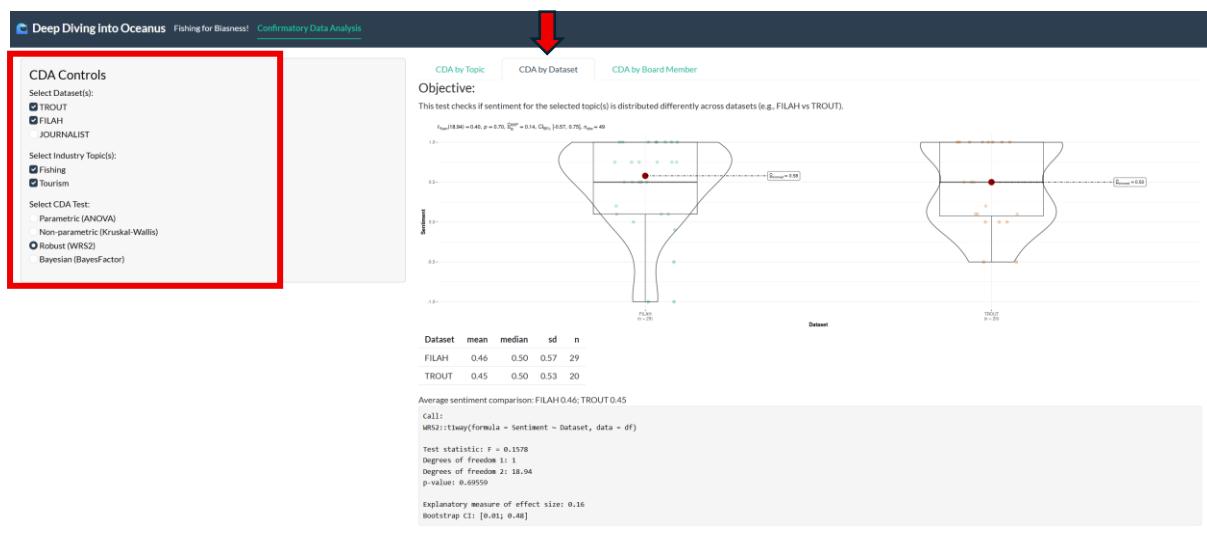
### c. Interactivity

Change the dataset ticks, topic ticks or test type in the CDA Controls panel, and the plot and statistics update immediately.

### d. Contextual Example

With only TROUT ticked in the dataset list and the Kruskal-Wallis option selected, the panel compares 12 fishing records with 8 tourism records. The violin plot shows Fishing scores clustered at the ceiling (median = +1.00) while Tourism scores centre near +0.15. The statistical output reports  $\chi^2(1) = 3.2505$ ,  $p = 0.0714$ , so the difference falls short of conventional significance although the effect is moderate. In other words, within the TROUT notes alone there is suggestive but inconclusive evidence that sentiment towards Fishing is higher than towards Tourism.

## 10. CDA by Dataset



### a. Purpose

Determines whether the sentiment attached to the currently selected topic set varies between the datasets you have ticked.

### b. Display

The main panel presents a violin with an overlaid box for each dataset, summarising the distribution of sentiment scores. Beneath the plot appears a concise table of descriptive statistics, followed by the full output produced by the chosen statistical test.

### c. Interactivity

Changing the dataset ticks, topic ticks or test type in the CDA Controls panel triggers an immediate redraw of the plot, a recalculation of the summary statistics and new test results.

### d. Contextual example

With FILAH and TROUT selected, both topics active and the robust WRS2 test applied, the violin plot shows near identical centres: FILAH mean 0.46, median 0.50, n 29, TROUT mean 0.45, median 0.50, n 20. Welch's comparison reports  $t(18.94) = 0.40$ ,  $p = 0.70$ , and WRS2 returns  $F = 0.1578$ ,  $p = 0.69559$ , effect size  $\approx 0.16$ . Thus, under these filters the difference between FILAH and TROUT is not statistically significant.

## 11. CDA by Board Member



### a) Purpose

Assesses whether the selected committee member expresses different sentiment towards Fishing and Tourism topics when all three datasets are pooled.

**b) Display**

The panel shows a two-violin plot, one violin for Fishing, the other for Tourism. Each violin carries an overlaid box plot, a red dot for the mean and a dashed line indicating its value. Beneath the figure the application prints a small ANOVA or equivalent table, followed by the full statistical output.

**c) Interactivity**

Choose a member from the drop-down on the left and pick a test type. The plot, the descriptive statistics and the test results all update immediately.

**d) Contextual example**

With Seal selected and the parametric ANOVA option active, six Fishing records cluster around a mean sentiment of 0.07, whereas four Tourism records cluster around 0.15. The ANOVA table reports  $F = 5.714$ ,  $p = 0.0438$ , indicating that Seal's sentiment towards Tourism is significantly more positive than towards Fishing under the current settings.

## 12. Closing remarks

The dashboard is designed for exploratory first impressions followed by confirmatory testing. A reliable workflow is to begin on Fishing for Biasness, drill down with the filters until a clear visual pattern emerges, then switch to Confirmatory Data Analysis to test whether the pattern is statistically credible. If at any point results appear inconsistent, click Reset Analysis to clear all filters and start again.