SQL Codes and Outputs for Bird Data

Summary

This document discusses conducting queries and analysing results related to bird data. It covers the process of creating a table for bird monitoring and provides sample SQL queries.

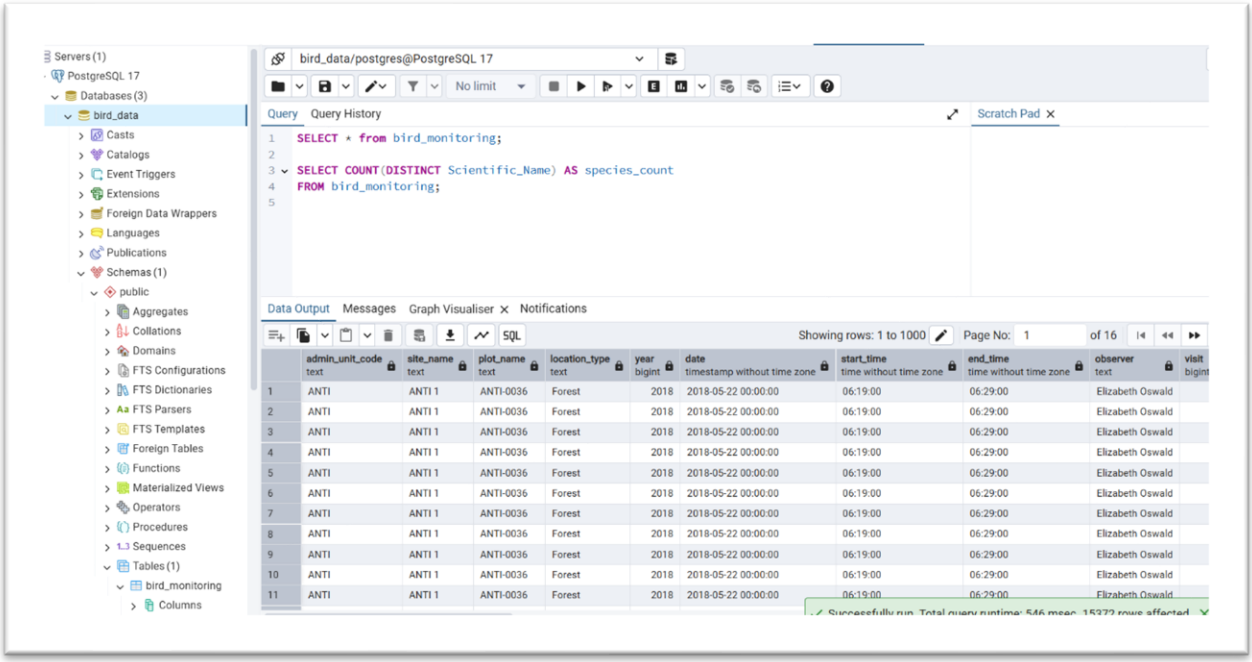
Ordered Images with Borders

No images were detected in the provided context or resources. Please insert or specify the images you would like to arrange and have bordered, and I will organise them accordingly.

Queries and Results

1. Creating a Table for Bird Data

2. SELECT * from bird_monitoring;



3. SELECT COUNT(DISTINCT Scientific_Name) AS species_count

FROM bird_monitoring;

```sql
SELECT COUNT(DISTINCT Scientific_Name) AS species_count
FROM bird_monitoring;
```

ata Output | Messages | Graph Visualiser | Notifications

species_count bigint
127

```sql
SELECT Location_Type, COUNT(DISTINCT Scientific_Name) AS species_count
FROM bird_monitoring
GROUP BY Location_Type
ORDER BY species_count DESC;
```

Data Output | Messages | Graph Visualiser | Notifications

	location_type text	species_count bigint
1	Forest	108
2	Grassland	107

```
18  SELECT Common_Name,
19         COUNT(*) AS observation_count
20  FROM bird_monitoring
21  GROUP BY Common_Name
22  ORDER BY observation_count DESC
23  LIMIT 10;
24
```

Data Output | Messages | Graph Visualiser | Notifications

	common_name text	observation_count bigint
1	Northern Cardinal	1125
2	Carolina Wren	993
3	Red-eyed Vireo	738
4	Eastern Tufted Titmouse	720
5	Indigo Bunting	611
6	Eastern Wood-Pewee	574
7	Field Sparrow	492
8	Red-bellied Woodpecker	489
9	American Robin	470
10	Acadian Flycatcher	462

```
25  SELECT EXTRACT(YEAR FROM Date) AS obs_year,
26         EXTRACT(MONTH FROM Date) AS obs_month,
27         COUNT(*) AS observation_count
28  FROM bird_monitoring
29  GROUP BY obs_year, obs_month
30  ORDER BY obs_year, obs_month;
31
```

Data Output | Messages | Graph Visualiser | Notifications

	obs_year numeric	obs_month numeric	observation_count bigint
1	2018	5	4864
2	2018	6	6211
3	2018	7	4297

```sql
SELECT Plot_Name,
       COUNT(DISTINCT Scientific_Name) AS species_count
FROM bird_monitoring
GROUP BY Plot_Name
ORDER BY species_count DESC
LIMIT 10;
```

Data Output | Messages | Graph Visualiser | Notifications

	plot_name text	species_count bigint
1	MONO-0057	27
2	MANA-0047	27
3	ANTI-0105	27
4	CHOH-0812	26
5	MONO-0076	26
6	MONO-0085	26
7	MANA-0048	26
8	MONO-0066	26
9	ANTI-0009	25
10	ANTI-0034	25

```sql
SELECT Observer,
       COUNT(*) AS total_records,
       COUNT(DISTINCT Scientific_Name) AS species_observed
FROM bird_monitoring
GROUP BY Observer
ORDER BY total_records DESC;
```

Data Output | Messages | Graph Visualiser | Notifications

	observer text	total_records bigint	species_observed bigint
1	Elizabeth Oswald	5763	120
2	Kimberly Serno	5346	91
3	Brian Swimelar	4263	84

```sql
SELECT Location_Type,
       COUNT(DISTINCT Scientific_Name) AS watchlist_species_count
FROM bird_monitoring
WHERE PIF_Watchlist_Status = 'TRUE'
GROUP BY Location_Type
ORDER BY watchlist_species_count DESC;
```

Data Output | Messages | Graph Visualiser | Notifications

	location_type text	watchlist_species_count bigint
1	Forest	7
2	Grassland	4

```sql
SELECT CASE
         WHEN Humidity < 30 THEN 'Low (<30%)'
         WHEN Humidity BETWEEN 30 AND 60 THEN 'Medium (30-60%)'
         ELSE 'High (>60%)'
       END AS humidity_range,
       COUNT(*) AS observation_count
FROM bird_monitoring
GROUP BY humidity_range
ORDER BY observation_count DESC;
```

Data Output | Messages | Graph Visualiser | Notifications

	humidity_range text	observation_count bigint
1	High (>60%)	13394
2	Medium (30-60%)	1919
3	Low (<30%)	59

```sql
SELECT distance_numeric,
       COUNT(*) AS observation_count
FROM bird_monitoring
GROUP BY distance_numeric
ORDER BY observation_count DESC;
```

Data Output | Messages | Graph Visualiser | Notifications

	distance_numeric double precision	observation_count bigint
1	75	8463
2	25	6909

```sql
SELECT Season,
       Location_Type,
       COUNT(*) AS observation_count,
       COUNT(DISTINCT Scientific_Name) AS species_count
FROM bird_monitoring
GROUP BY Season, Location_Type
ORDER BY Season, species_count DESC;
```

Data Output | Messages | Graph Visualiser | Notifications

	season text	location_type text	observation_count bigint	species_count bigint
1	Spring	Grassland	2474	96
2	Spring	Forest	2390	94
3	Summer	Forest	6156	91
4	Summer	Grassland	4352	86