Project Bluecoats - Score Analysis And Visualization

Read Me

📌 **Purpose**
This notebook visualizes the performance progression of the Bluecoats Drum Corps across selected seasons, using caption-level DCI scoring data.
The report aims to identify scoring patterns, highlight major performance shifts, and compare caption scores (**General Effect**, **Visual**, and **Music**) across the seasons. 📊 **Data Source**

- "https://www.dci.org/scores/"
- Contains show-level scoring data for the Bluecoats, including overall scores and individual captions.

Collection & Cleaning DCI.org

- Initial Parsing
- Updating Latest Show Data
- Dataframes Displays

Visualization

- Preparation
- Total Score Graph
- Caption Score Graphs

Future Outlook...

Enjoy!

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In [1]:
```
import requests
from bs4 import BeautifulSoup
import pandas as pd
from pprint import pprint
import importlib
```

Colletion and Cleaning DCI.org

Inital Parsing

Loops through all the shows documented on dci.org and writes the caption and sub caption scores into a csv file notated by date, location, corp name into a score_by_show&corp.csv

In [ ]:
```
import find_show_info as fds
importlib.reload(fds)
fds.scrape_dci_recaps_selenium()
fds.build_show_score_list()
fds.build_show_score_df()
```

Updating Lastest Shows

Updates the lastest shows and write it to score_by_show.csv (name slightly different for differentiating purpose).

In [ ]:
```
import find_show_info as fds
importlib.reload(fds)
fds.build_lastest_show_score_df()
```

Dataframes

Raw html

In [47]:
```
df_raw = pd.read_csv("all_shows_score_recap.csv")
pprint(df_raw.iloc[0, 0:3])
```

```
July 25, 2025
July 25, 2025
Nashville, TN
Birmingham, AL
General Effect|General Effect 1|T. Wemhoff|Rep|Perf|TOT|General Effect 2|M. Howard|Rep|Perf|TOT|TOT    Gene
ral Effect|General Effect 1|A. Combites|Re...
Name: 0, dtype: object
```

All corps score at all shows

In [44]:
```
df_all = pd.read_csv("score_by_show.csv")
display(df_all.iloc[:2,:])
```

	Show Date	Show Location	Corp Name	General Effect - TOT	General Effect - TOT_rank	Visual - TOT	Visual - TOT_rank	Music - TOT	Music - TOT_rank	Sub Total	Sub Total_rank	Total	Total_
0	July 25, 2025	Birmingham, AL	Blue Knights	34.1	1	25.65	1	25.9	1	85.650	1	85.650	
1	July 25, 2025	Birmingham, AL	Spirit of Atlanta	32.9	2	24.75	2	25.2	2	82.850	2	82.850	

All Bluecoats shows since 2013

In [48]:
```
import find_show_info as fds
importlib.reload(fds)
fds.find_bluecoats()
df_bloo = pd.read_csv("bluecoats_shows.csv")
display(df_bloo.iloc[:2,:])
```

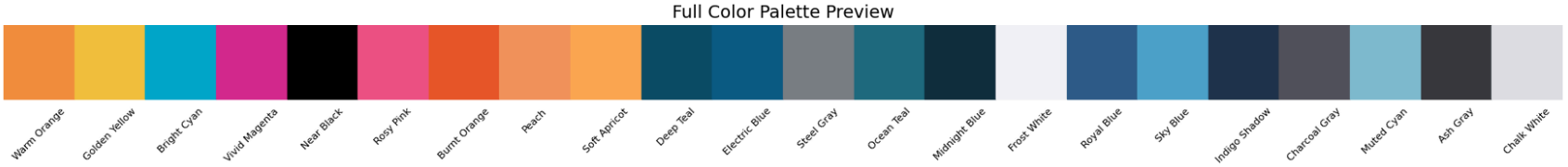
	Unnamed: 0	Show Date	Show Location	Corp Name	General Effect - TOT	General Effect - TOT_rank	Visual - TOT	Visual - TOT_rank	Music - TOT	Music - TOT_rank	Sub Total	Sub Total_rank	T
0	0	July 20, 2025	Bedford, TX	Bluecoats	37.00	1	28.0	1	27.950	1	92.950	1	92.
1	12	July 19, 2025	San Antonio, TX	Bluecoats	37.35	1	27.8	1	27.675	3	92.825	2	92

Visualization

Preparation

Bluecoats color from media pictures

In [6]:
```
import graph_scores as gs
importlib.reload(gs)
gs.show_color()
```

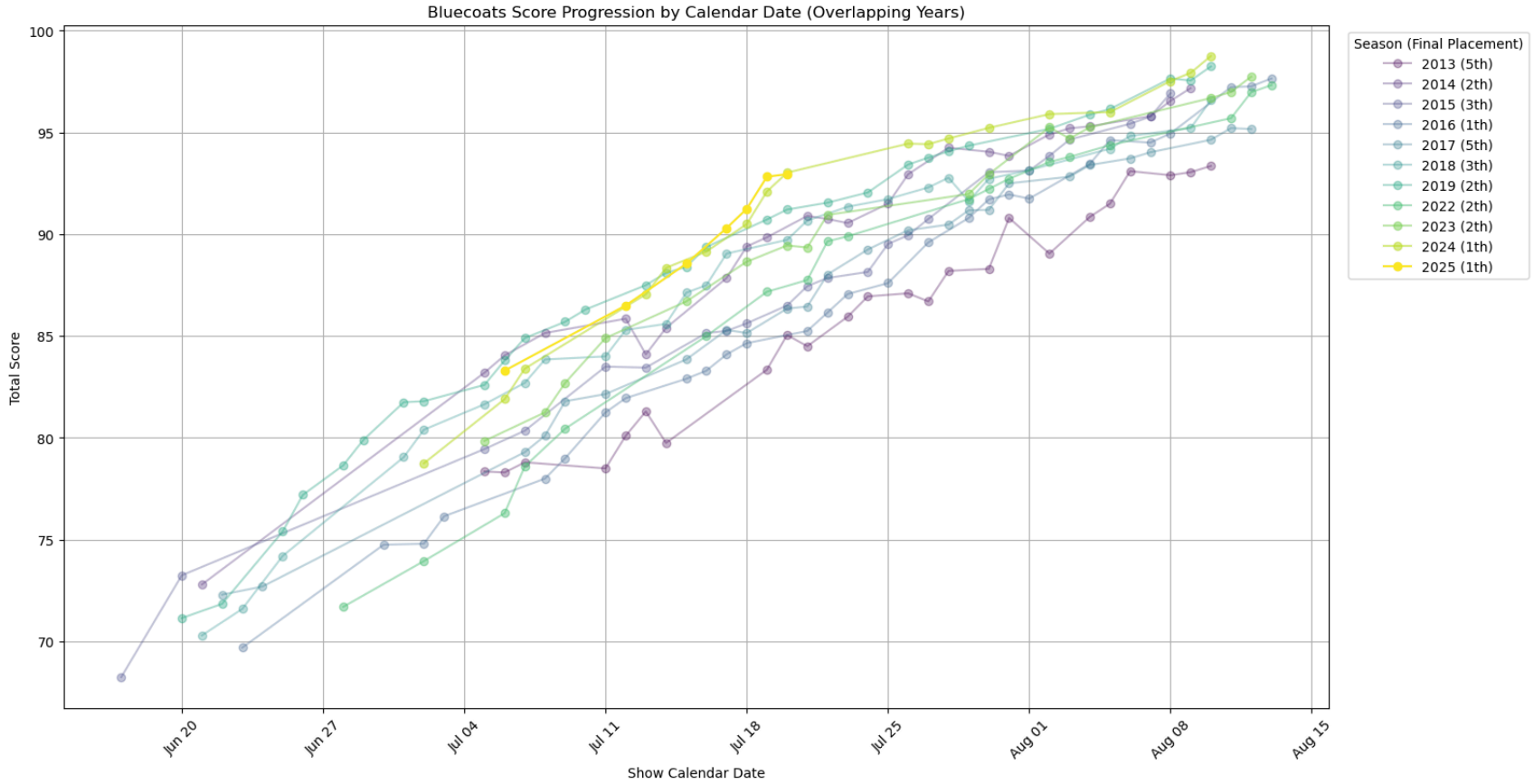


Total Score Graphs

Bluecoat season score progression since 2013

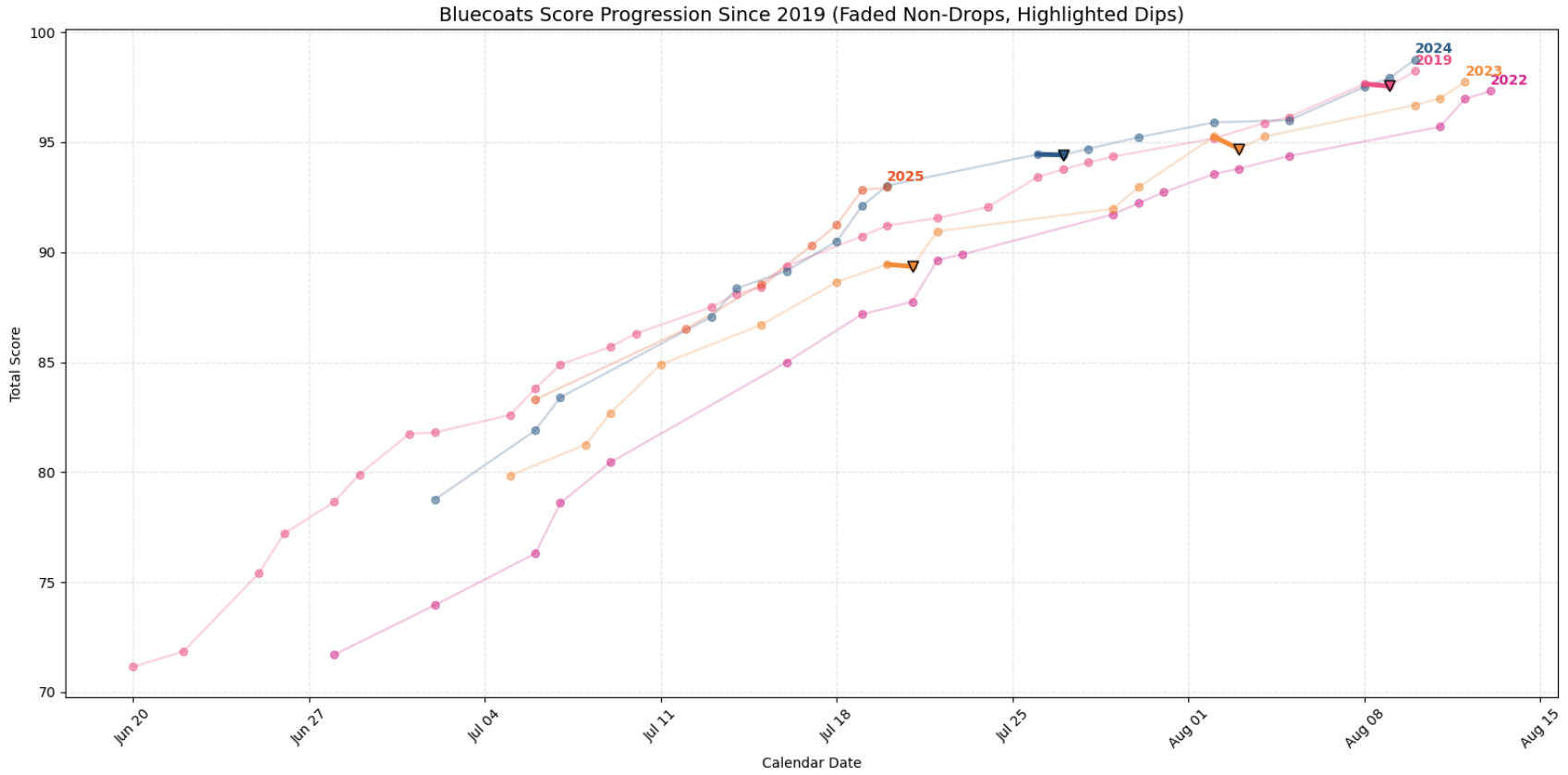
In [13]:
```
import graph_scores as gs
importlib.reload(gs)
```

```
gs.bluecoats_season_trend()
```

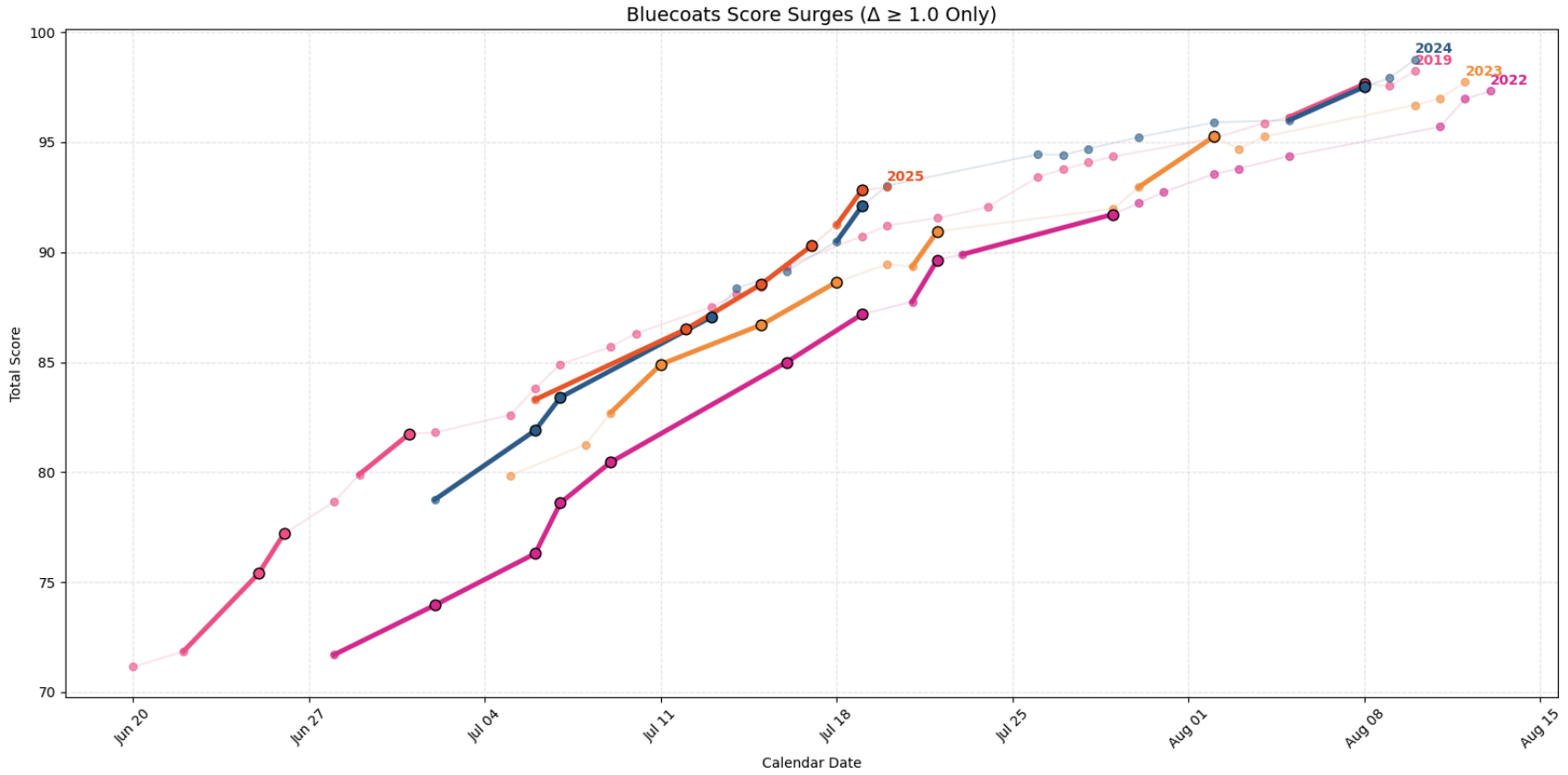


Bluecaots seasons since 2013 highlighting score drops

In [40]:
```
import graph_scores as gs
importlib.reload(gs)
gs.bluecoats_season_trend_highlight_drops()
```

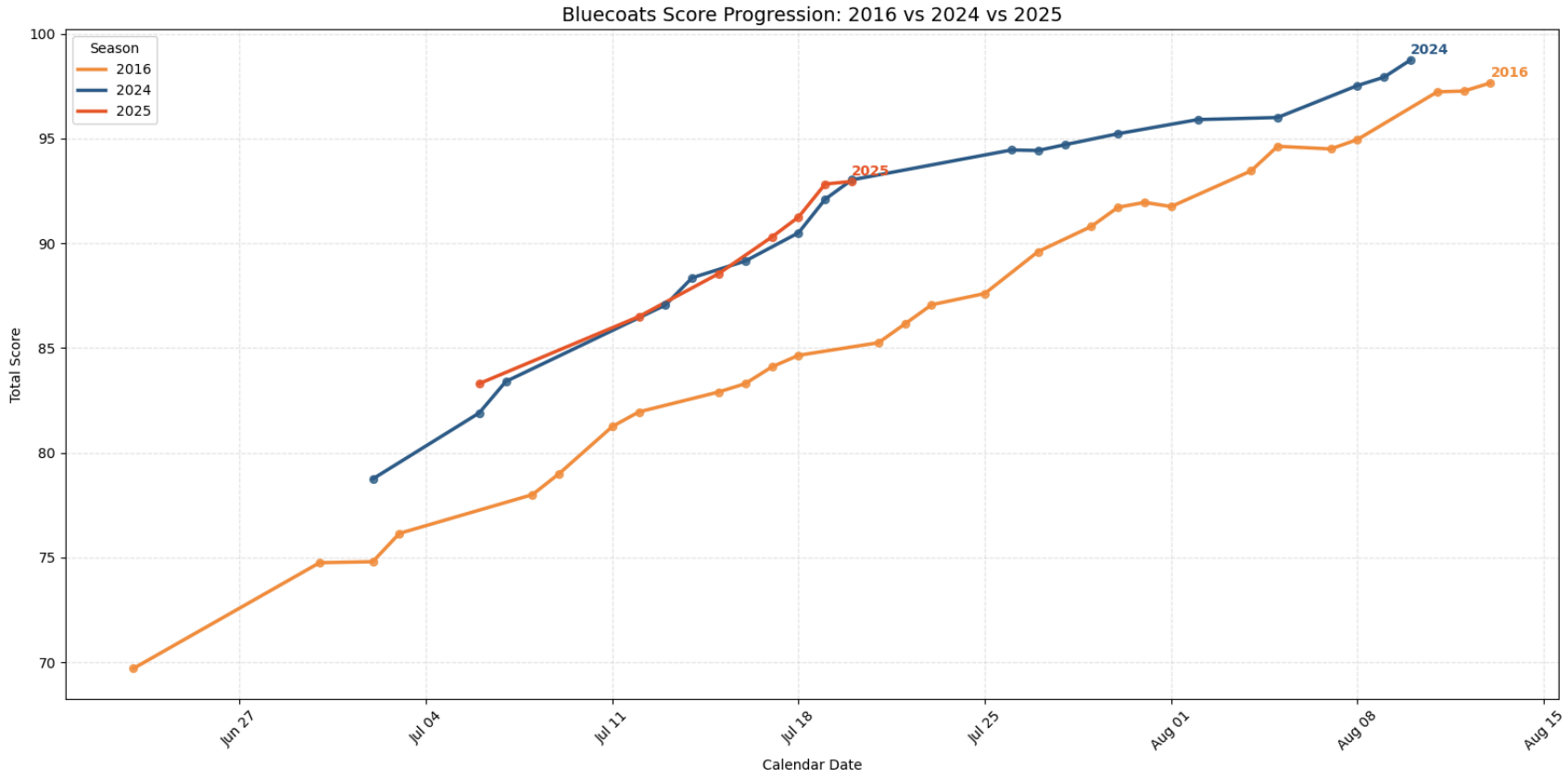


In [39]:
```
import graph_scores as gs
importlib.reload(gs)
gs.bluecoats_season_trend_highlight_improvements()
```



Bluecoats season 2025 and past championship seasons.

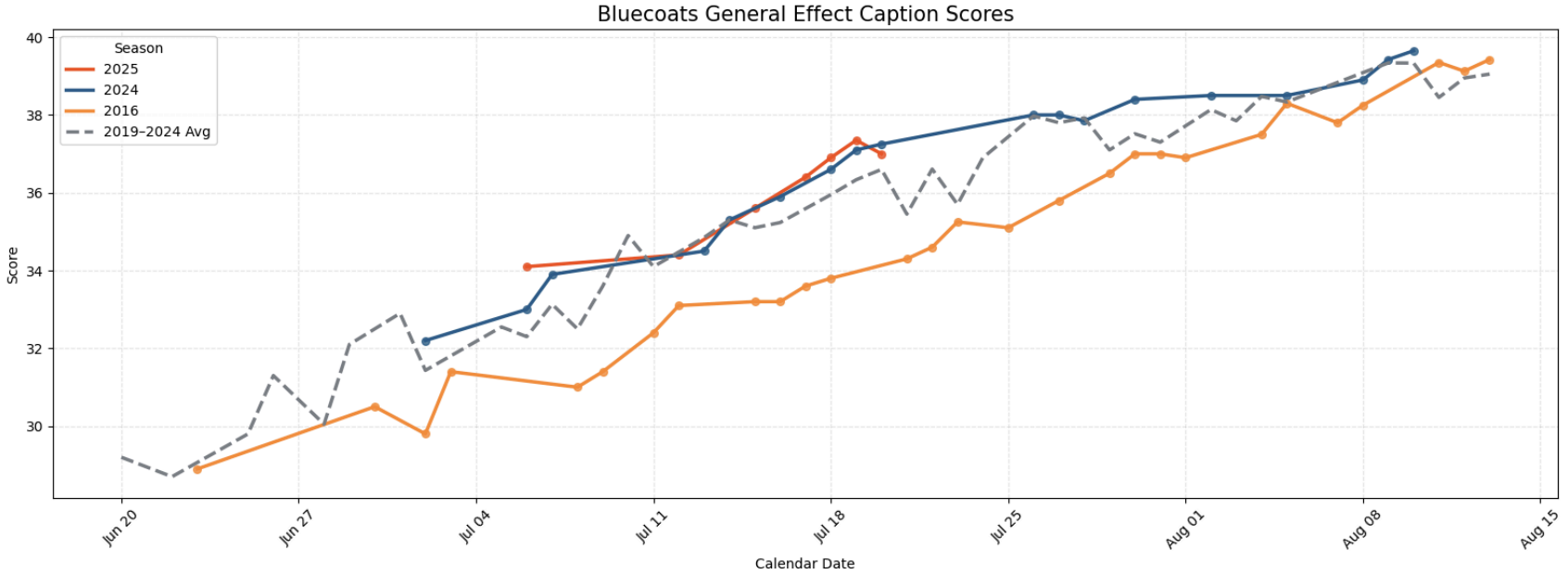
In [33]:
```
import graph_scores as gs
importlib.reload(gs)
gs.bluecoats_champ_seasons_plot()
```

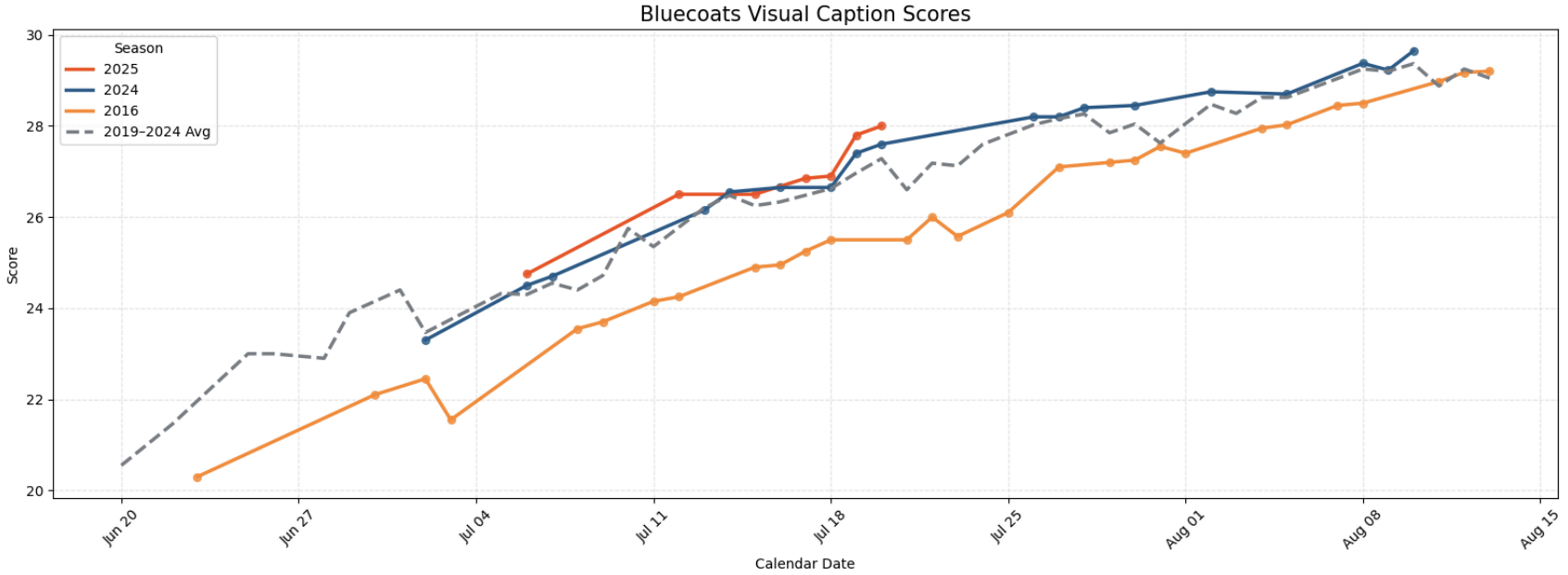


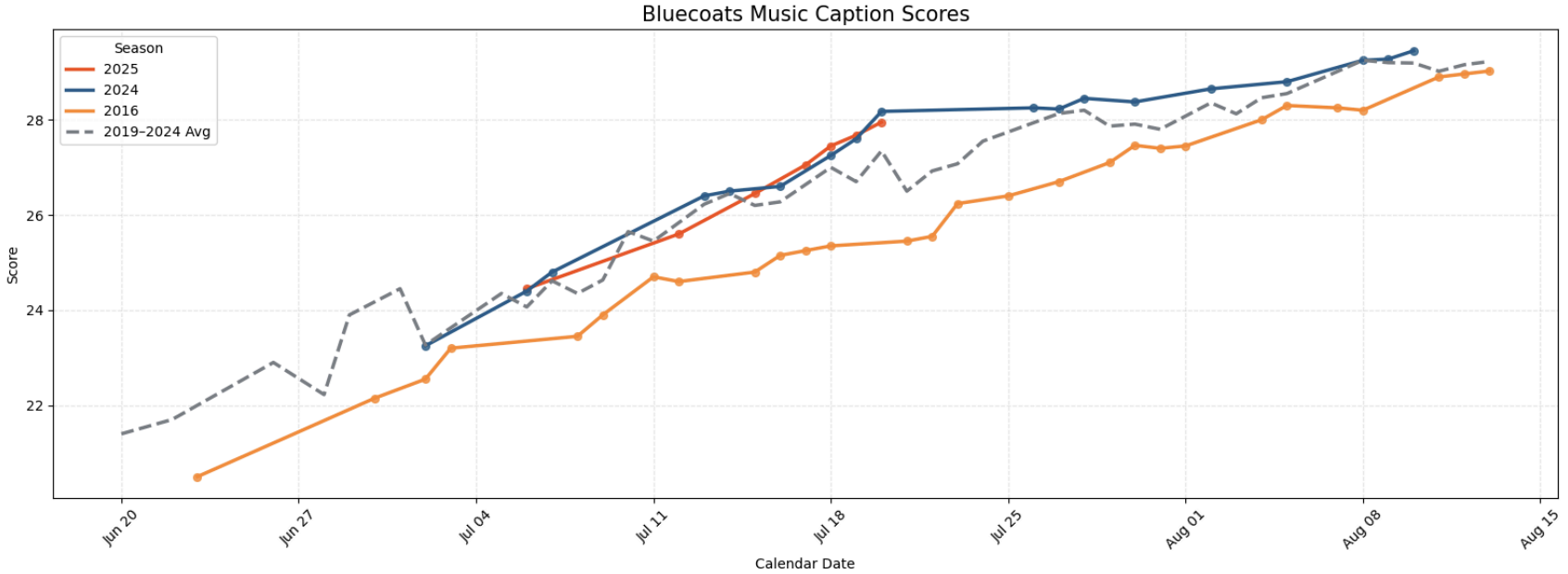
Caption Score Graphs

Bluecoats caption score trend with year 2025, 2024, 2016, and average of 2019-2024

In [38]:
```
import graph_scores as gs
importlib.reload(gs)
gs.bluecoats_caption_score_trend()
```


Bluecoats General Effect Caption Scores
Season
2025
2024
2016
2019–2024 Avg
Score
Calendar Date
Jun 20
Jun 27
Jul 04
Jul 11
Jul 18
Jul 25
Aug 01
Aug 08
Aug 15


Bluecoats Visual Caption Scores
Season
2025
2024
2016
2019–2024 Avg
Score
Calendar Date
Jun 20
Jun 27
Jul 04
Jul 11
Jul 18
Jul 25
Aug 01
Aug 08
Aug 15



Future Outlooks & Expansion Ideas

- Analyze judging trends by **matching judge names to caption scores**, identifying potential judge-specific scoring patterns or biases.
- Determine Bluecoats' **caption rankings in finals** across multiple years to reveal recurring **strengths and weaknesses**.
- If data permits, visualize operational season metrics such as:
  - **Spring training workload**: total and average rehearsal hours per day.
  - **Tour logistics**: total/average miles traveled, bus time, and housing/floor time.
  - **Tour rehearsal intensity**: rehearsal hours per day while on tour.
- Compare **caption score trajectories** of Bluecoats with peer corps (e.g., BD, Crown) for performance trend benchmarking.
- Analyze **score volatility** over a season to identify stability vs. inconsistency.
- Examine the **relationship between performance order and score**, especially at regionals and finals.
- Track **individual caption improvements** post-major show rewrites (if timestamped notes are available).