

Gender Diversity of Conference Leadership: Supplementary Materials

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1 Introduction

These materials accompany the Women in Engineering column, "Gender Diversity of Conference Leadership," published in the Robotics and Automation Society Magazine, June 2021 issue. They contain more detailed information about the gender diversity of leading conference roles (General Chair, Program Chair, and Plenary Speaker) than was possible to include in the article. Specifically, these materials include data on:

1. Leading roles by perceived gender by conference by year.
2. Mean and standard deviation of years since degree by perceived gender by year for each leading role.
3. Leading role by perceived gender by geography (region and country) by year.

Note that this dataset records perceived gender; it may not reflect the actual gender of a person due to two potential sources of error. First, gender is not binary, so by design, the dataset cannot correctly classify any individuals with nonbinary genders. Second, the gender classifications are derived from a mix of imperfect signals, rather than self-identification, so there is potential for misclassification.

Please contact Lydia Tapia (tapia@cs.unm.edu) and Laura Graesser (lauragraesser@google.com) for any questions about the article, these supplementary materials, or the dataset.

2 Dataset

The anonymized dataset is available on the IEEE RAS website at <https://www.ieee-ras.org/women-in-engineering/>. Please refer to the published article for the data collection methodology.

2.1 Conferences

The 11 RAS conferences included in this study are the 10 fully RAS-sponsored conferences:

- IEEE International Workshop on Advanced Robotics and its Social Impacts (ARSO).
- IEEE International Conference on Automation Science and Engineering (CASE).
- Joint EuroHaptics Conference and Symposium on Haptic Interfaces for Virtual Environment and Teleoperator Systems / World Haptics Conference (Haptics / WHC).
- IEEE RAS International Conference on Humanoid Robots (Humanoids).
- International Conference on Robotics and Automation (ICRA).
- IEEE International Symposium on Assembly and Task Planning / International Symposium on Assembly and Manufacturing (ISATP/ISAM).

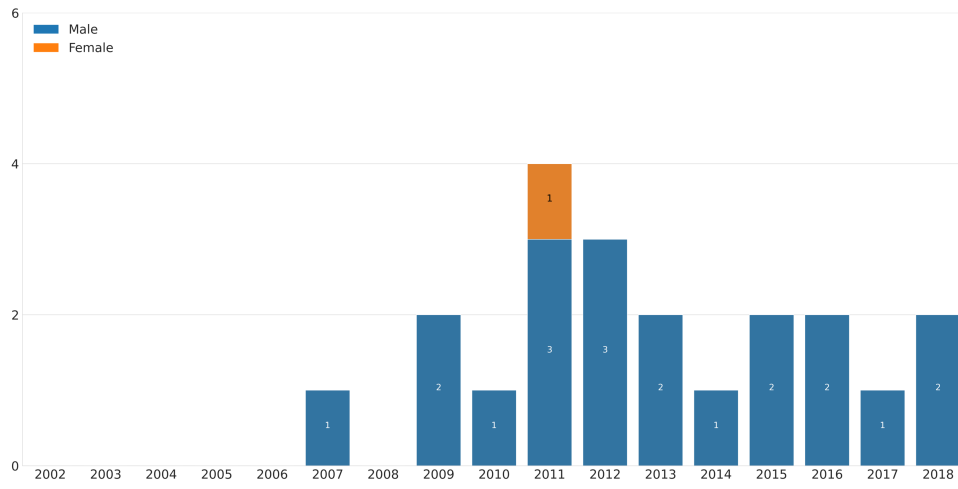
- IEEE International Conference on Micro-Electro-Mechanical Systems (MEMS).
- IEEE International Conference on Soft Robotics (Robosoft).
- IEEE International Conference on Simulation, Modeling, and Programming for Autonomous Robots (SIMPAN).
- IEEE International Symposium on Safety, Security, and Rescue Robotics (SSRR).

Additionally, the partially supported IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS) is included.

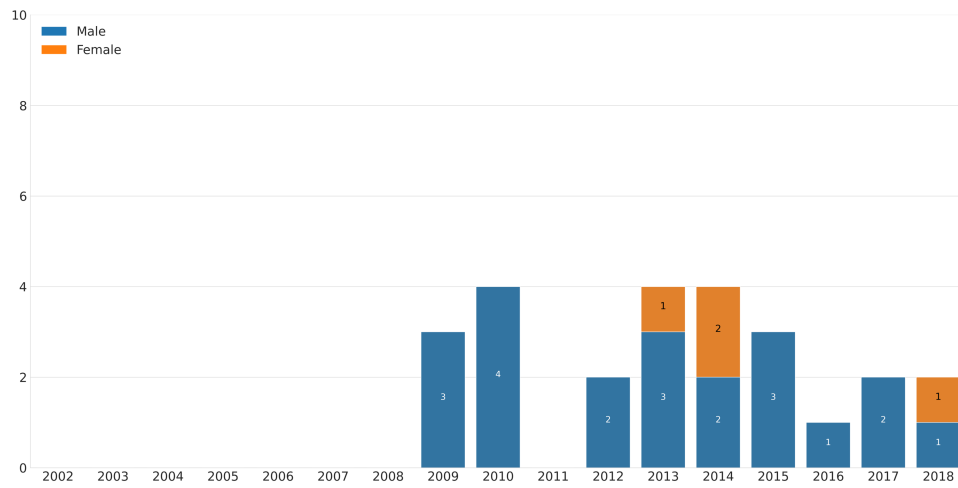
3 Data by Conference by Year

This section contains data on leading roles by perceived gender by year for each of the 11 conferences studied in this report.

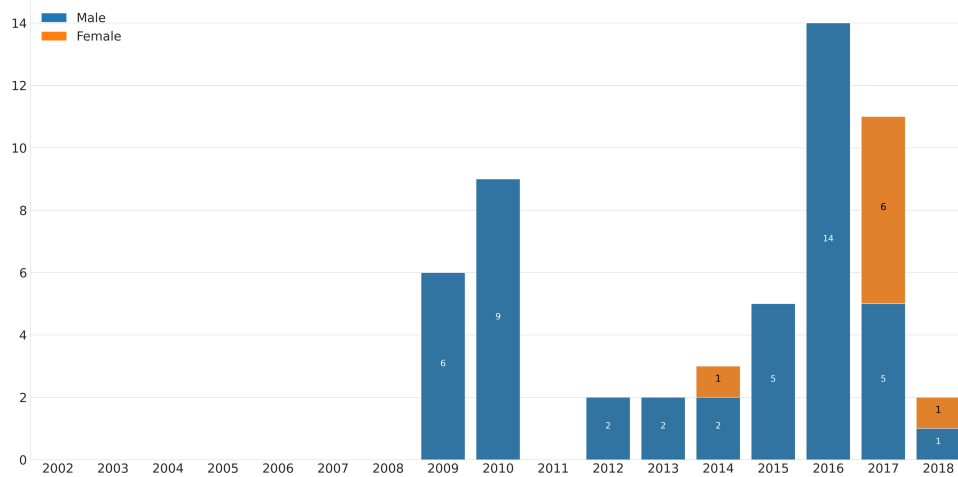
3.1 ARSO



(a) Count of General Chair roles by perceived gender by year



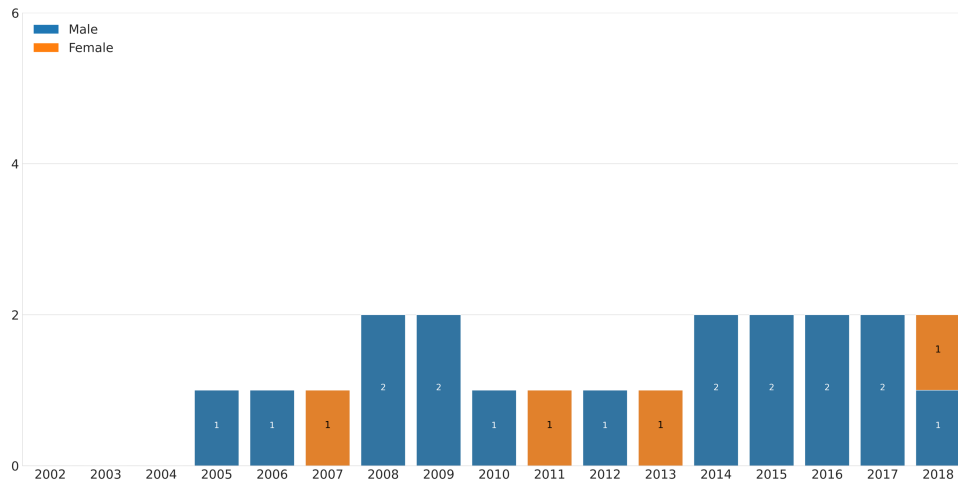
(b) Count of Program Chair roles by perceived gender by year



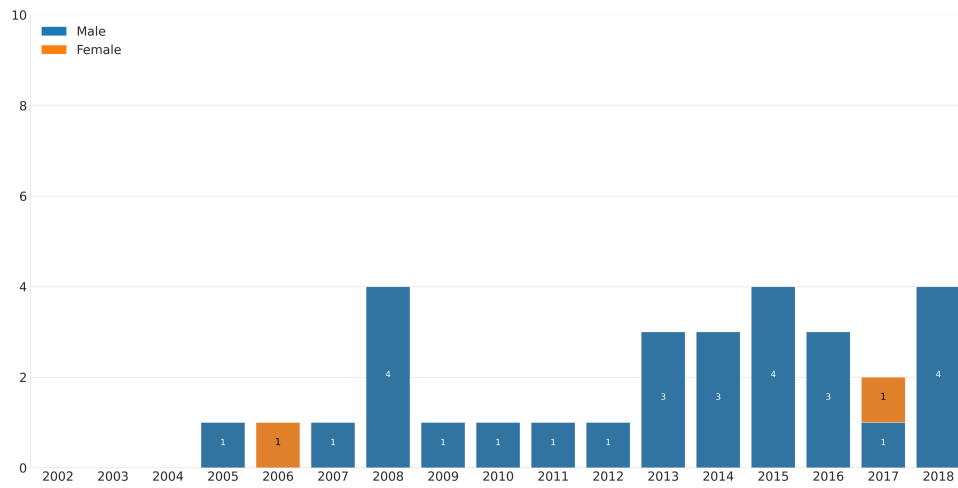
(c) Count of Plenary Speakers by perceived gender by year

Figure 1: ARSO

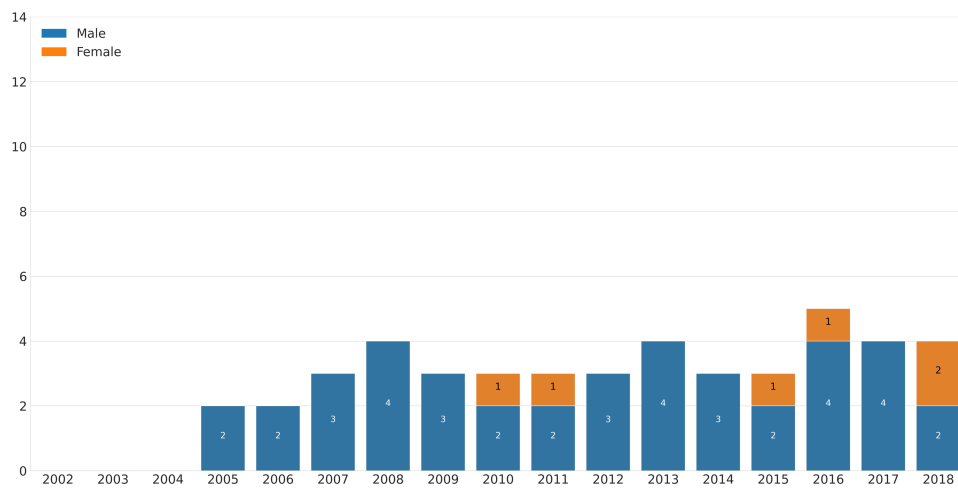
3.2 CASE



(a) Count of General Chair roles by perceived gender by year



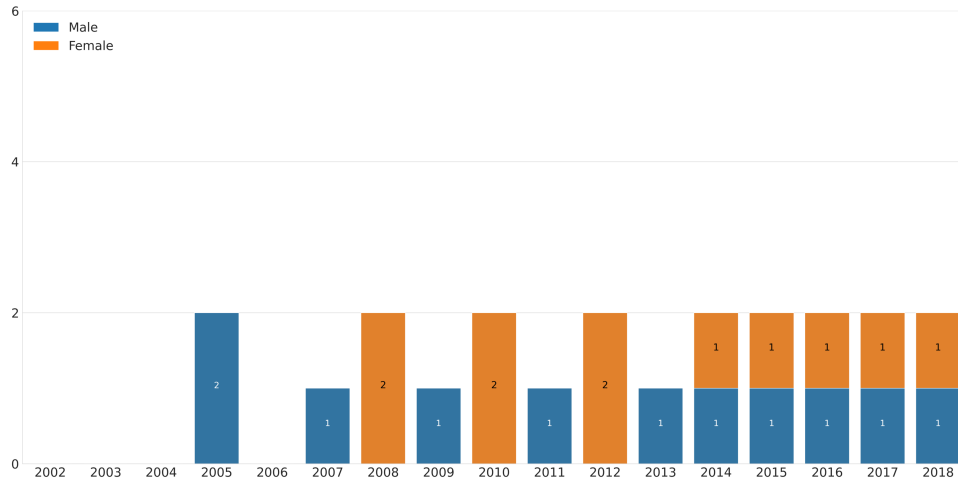
(b) Count of Program Chair roles by perceived gender by year



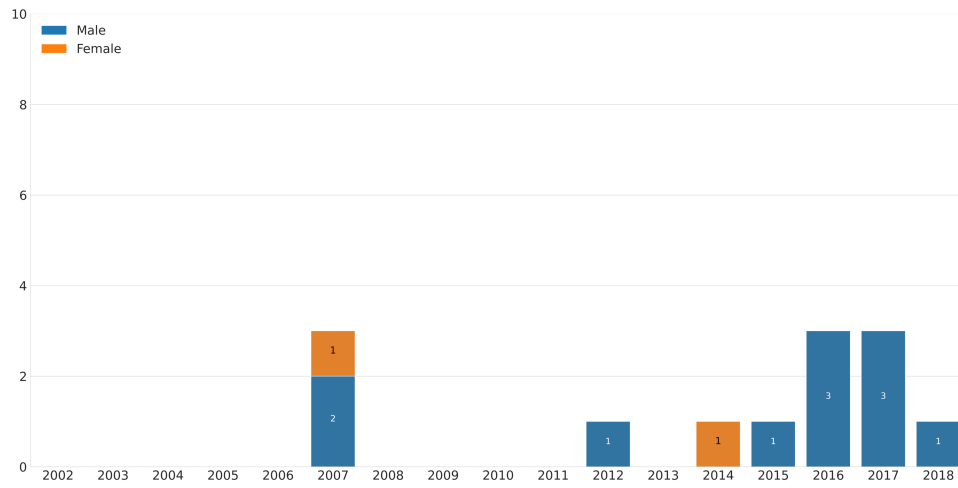
(c) Count of Plenary Speakers by perceived gender by year

Figure 2: CASE

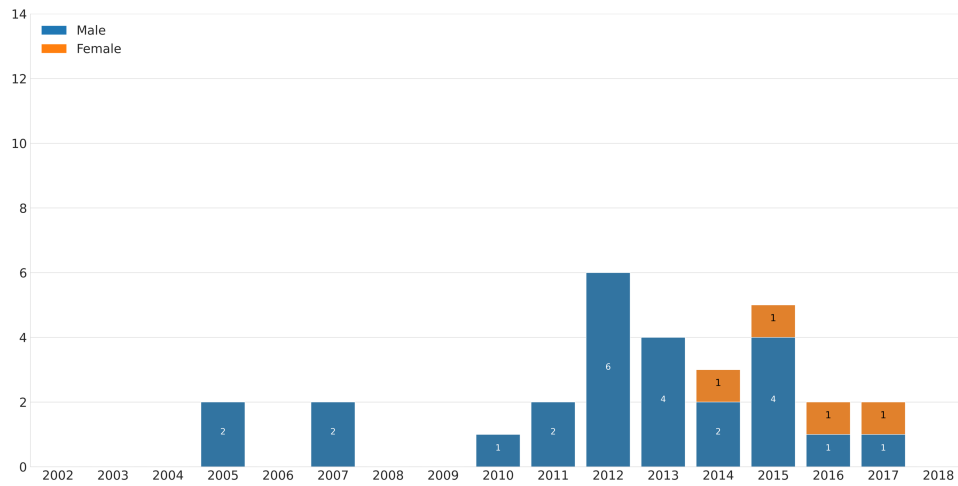
3.3 Haptics / WHC



(a) Count of General Chair roles by perceived gender by year



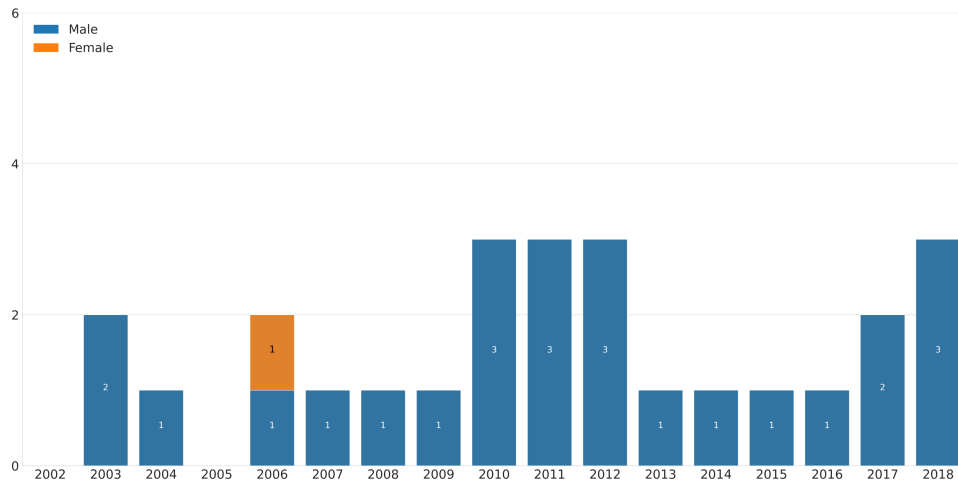
(b) Count of Program Chair roles by perceived gender by year



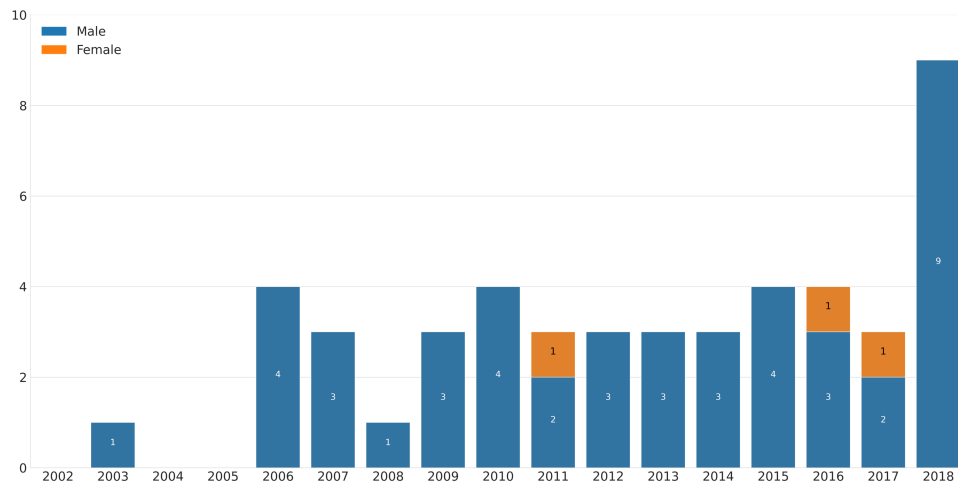
(c) Count of Plenary Speakers by perceived gender by year

Figure 3: Haptics / WHC

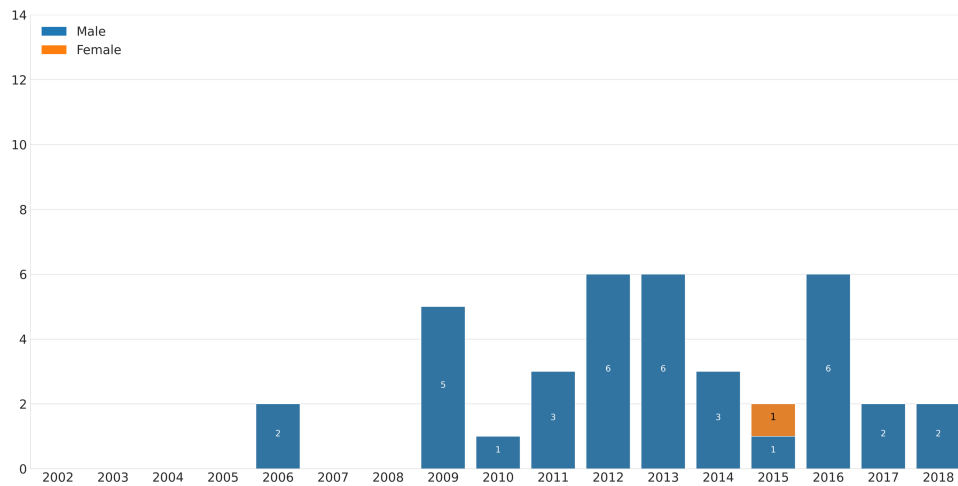
3.4 Humanoids



(a) Count of General Chair roles by perceived gender by year



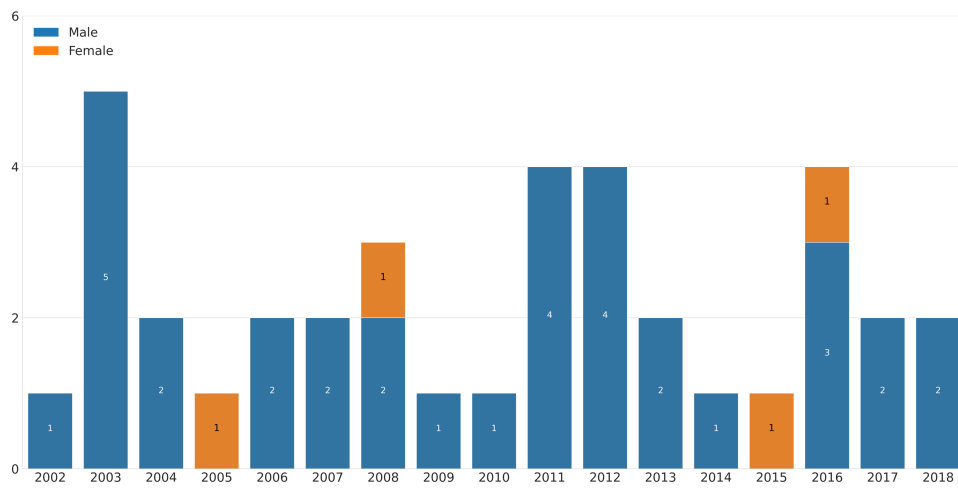
(b) Count of Program Chair roles by perceived gender by year



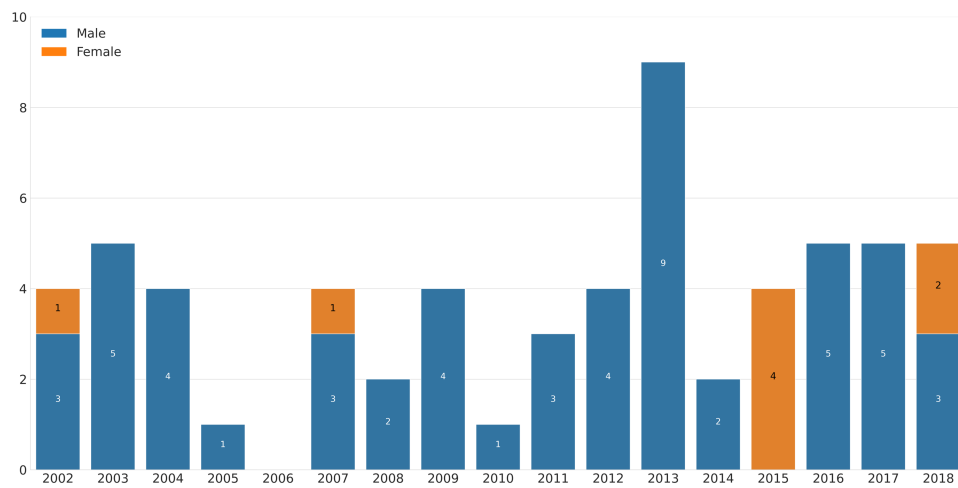
(c) Count of Plenary Speakers by perceived gender by year

Figure 4: Humanoids

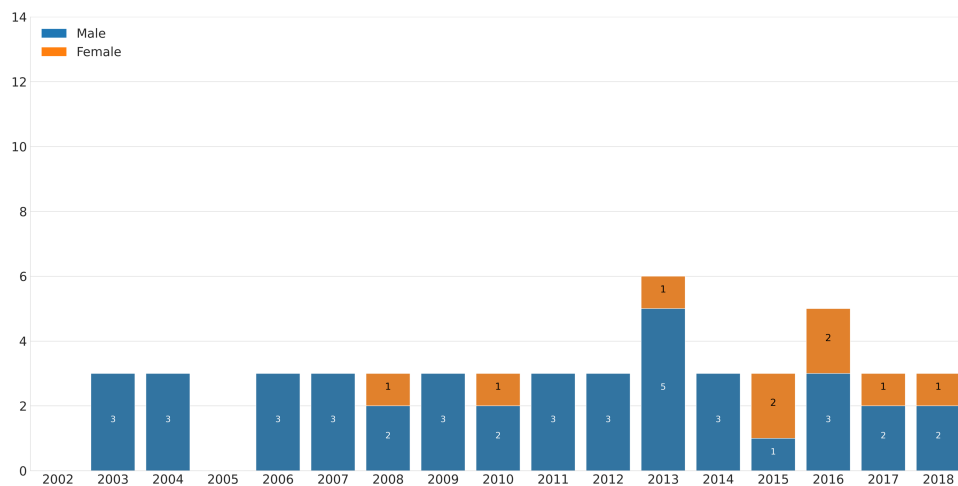
3.5 ICRA



(a) Count of General Chair roles by perceived gender by year



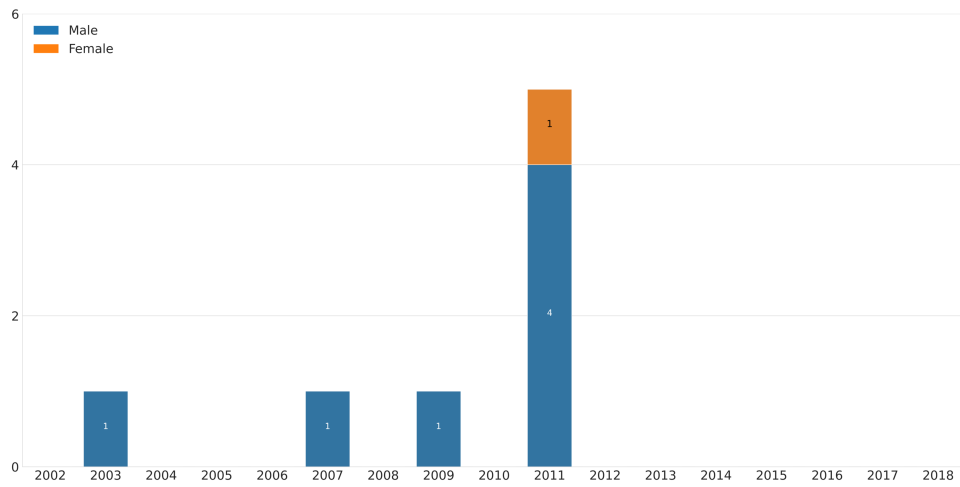
(b) Count of Program Chair roles by perceived gender by year



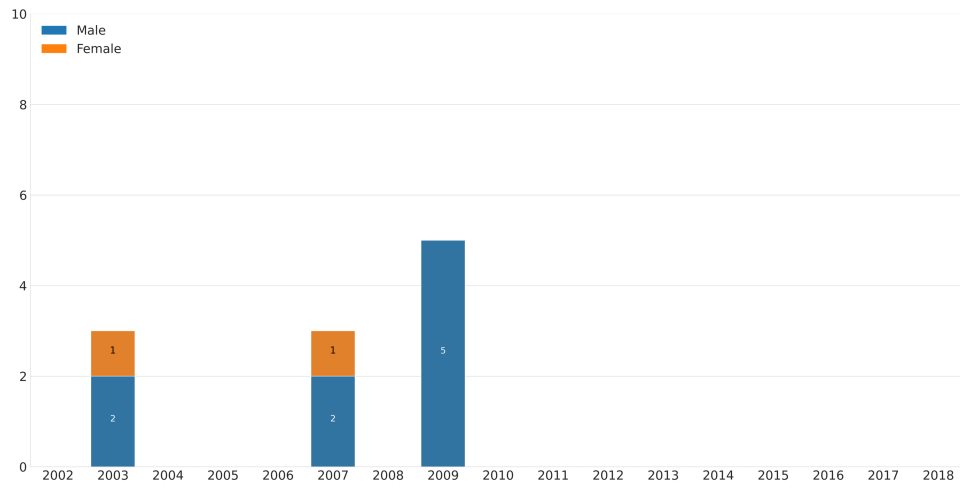
(c) Count of Plenary Speakers by perceived gender by year

Figure 5: ICRA

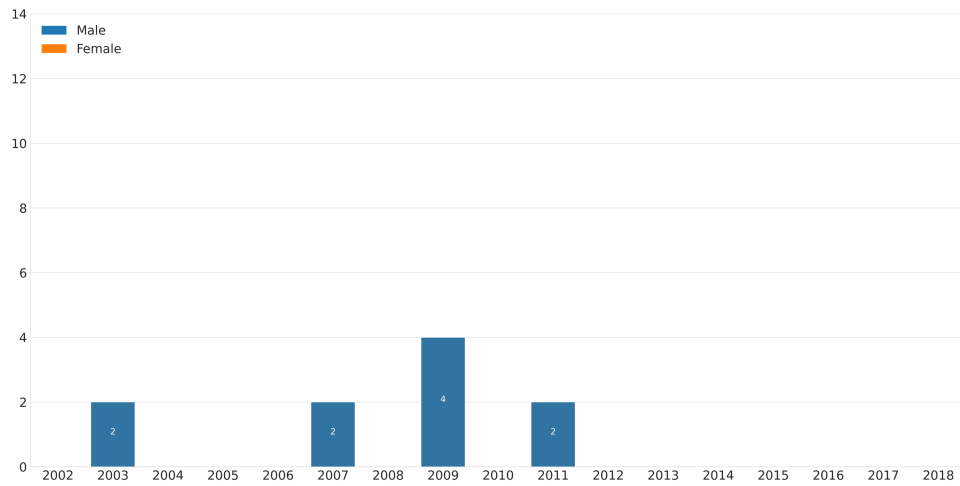
3.6 ISATP / ISAM



(a) Count of General Chair roles by perceived gender by year



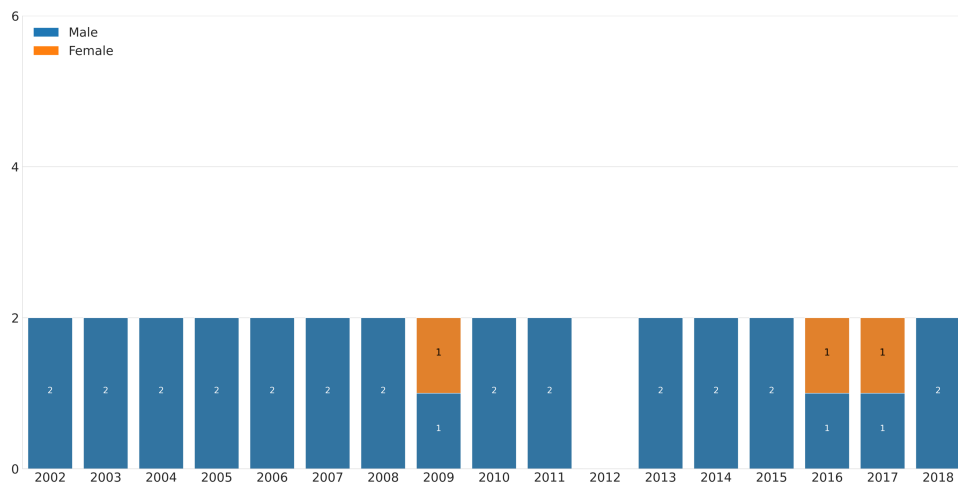
(b) Count of Program Chair roles by perceived gender by year



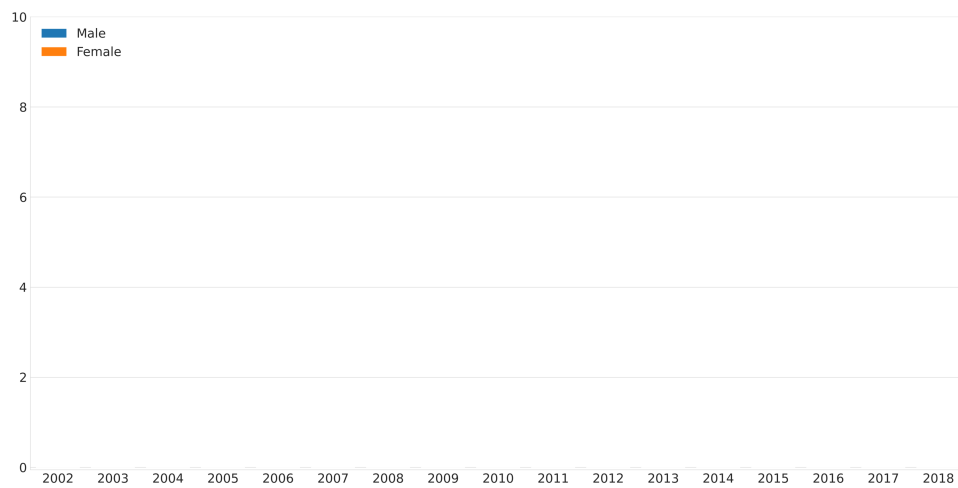
(c) Count of Plenary Speakers by perceived gender by year

Figure 6: ISATP / ISAM

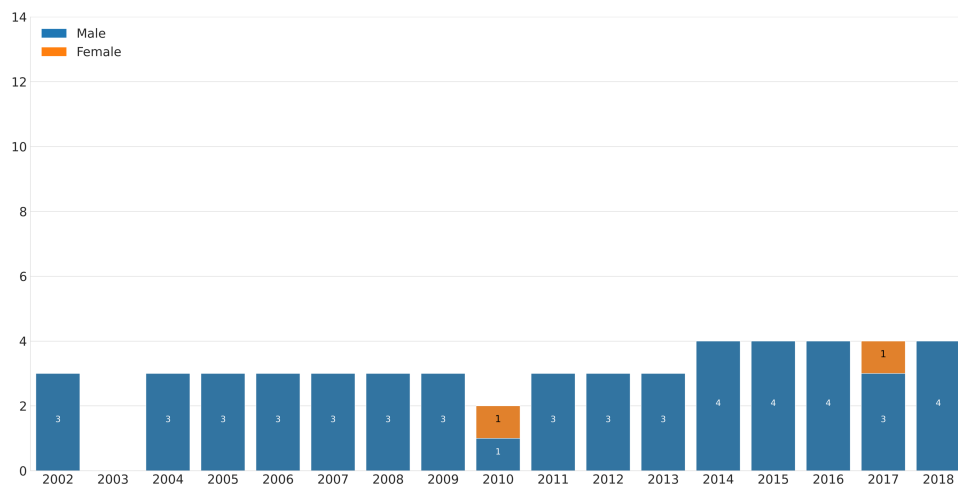
3.7 MEMS



(a) Count of General Chair roles by perceived gender by year



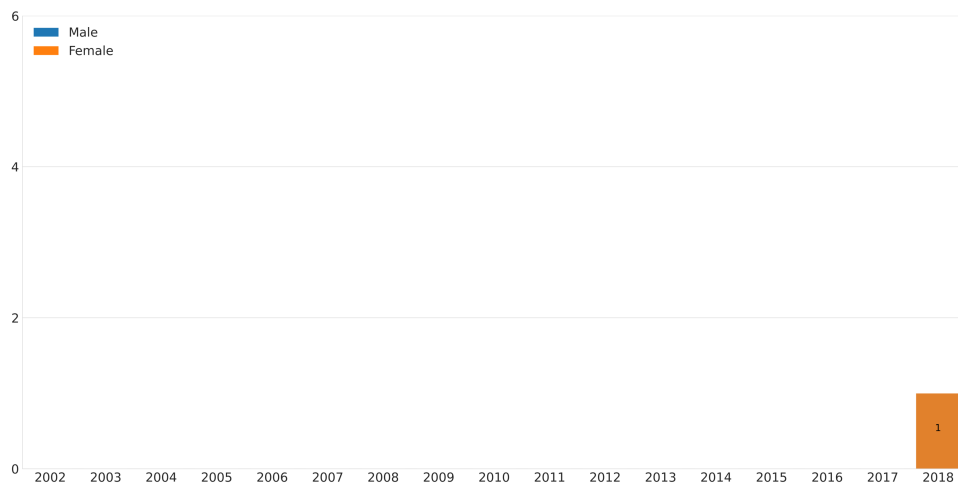
(b) Count of Program Chair roles by perceived gender by year



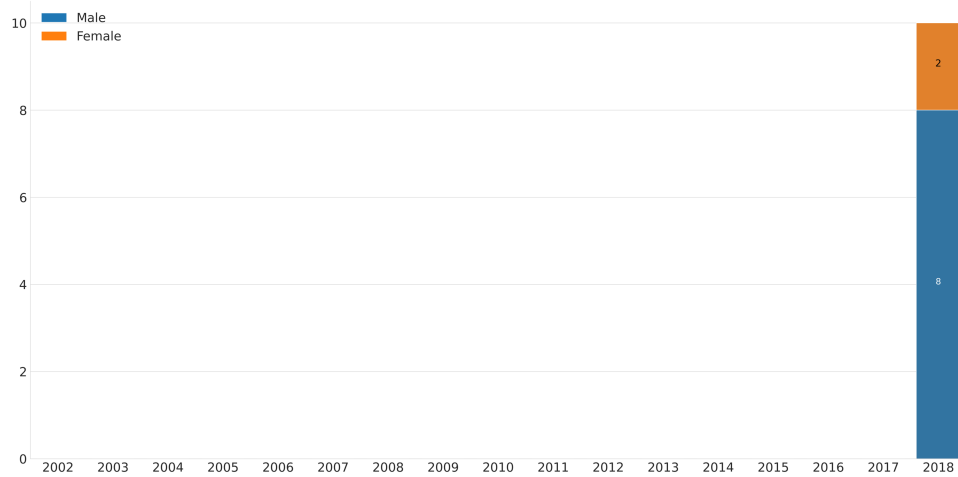
(c) Count of Plenary Speakers by perceived gender by year

Figure 7: MEMS

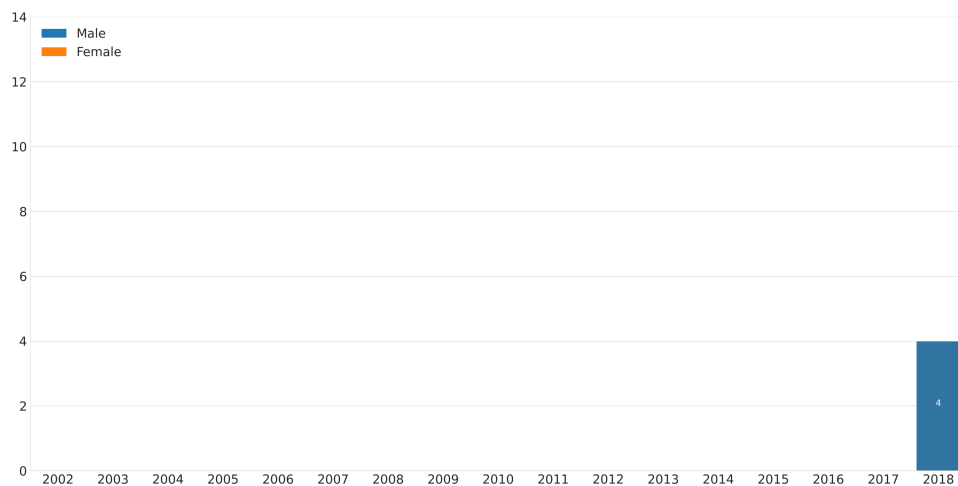
3.8 Robosoft



(a) Count of General Chair roles by perceived gender by year



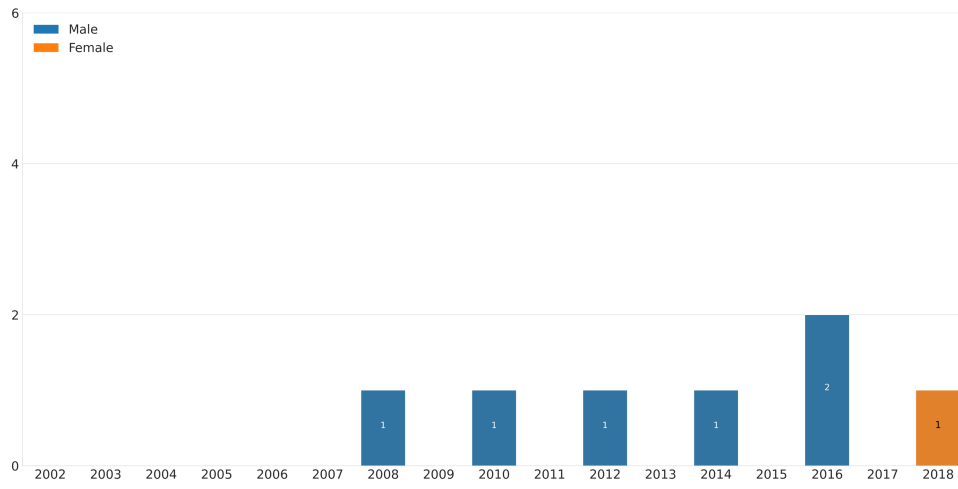
(b) Count of Program Chair roles by perceived gender by year



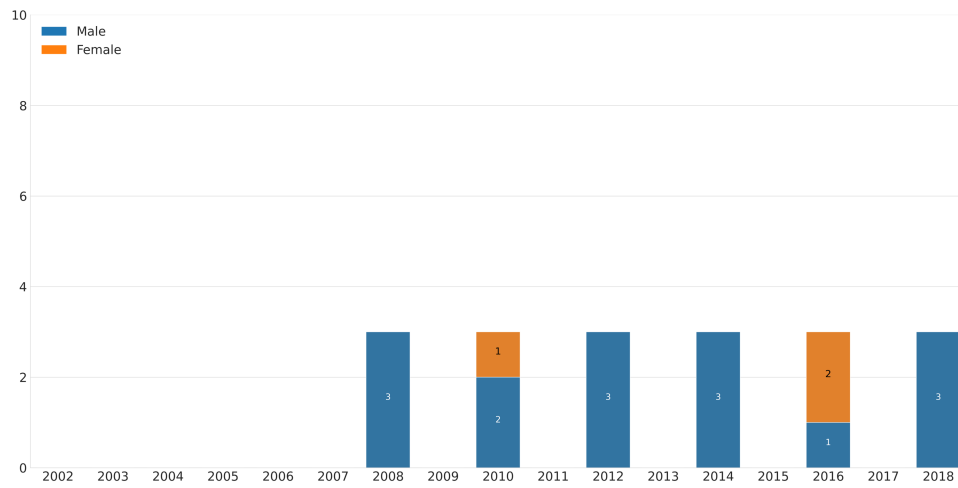
(c) Count of Plenary Speakers by perceived gender by year

Figure 8: Robosoft

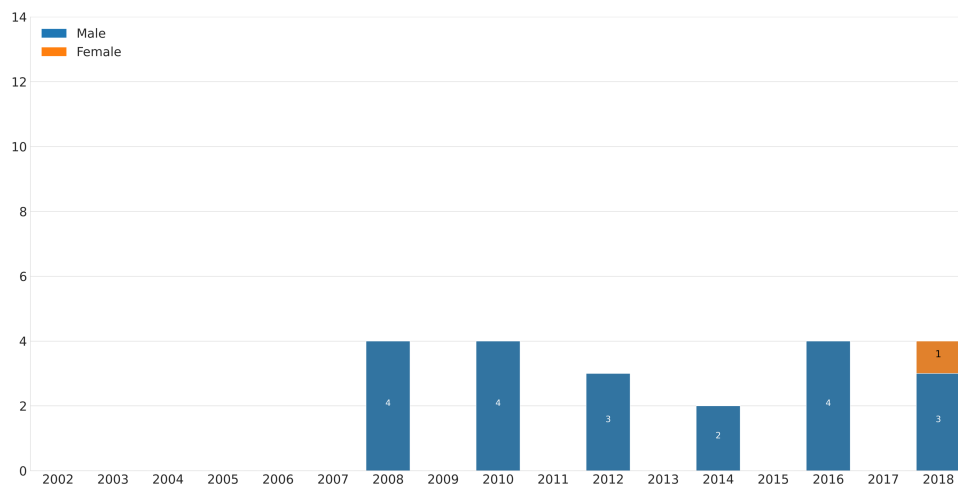
3.9 SIMPAR



(a) Count of General Chair roles by perceived gender by year



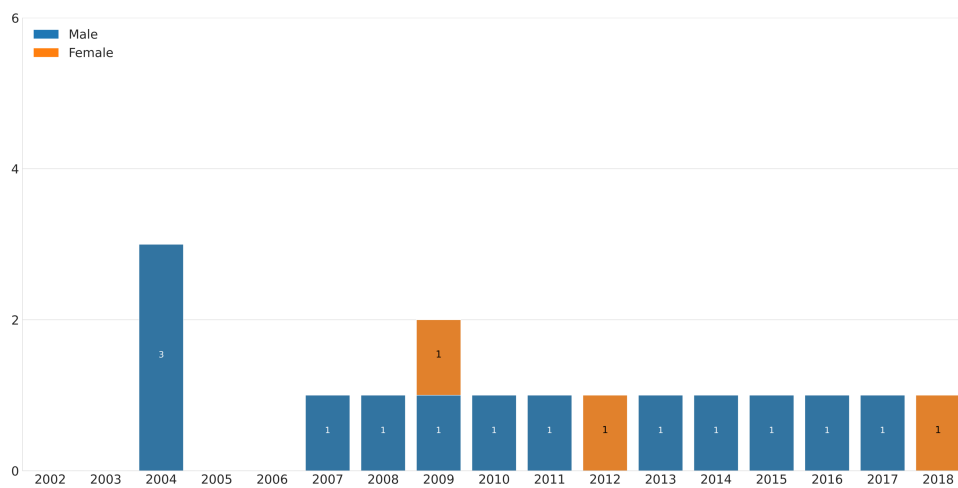
(b) Count of Program Chair roles by perceived gender by year



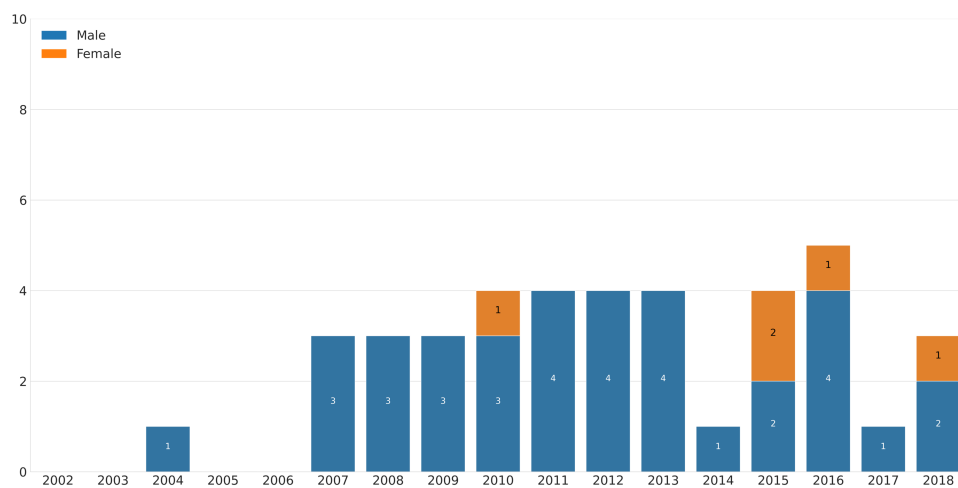
(c) Count of Plenary Speakers by perceived gender by year

Figure 9: SIMPAR

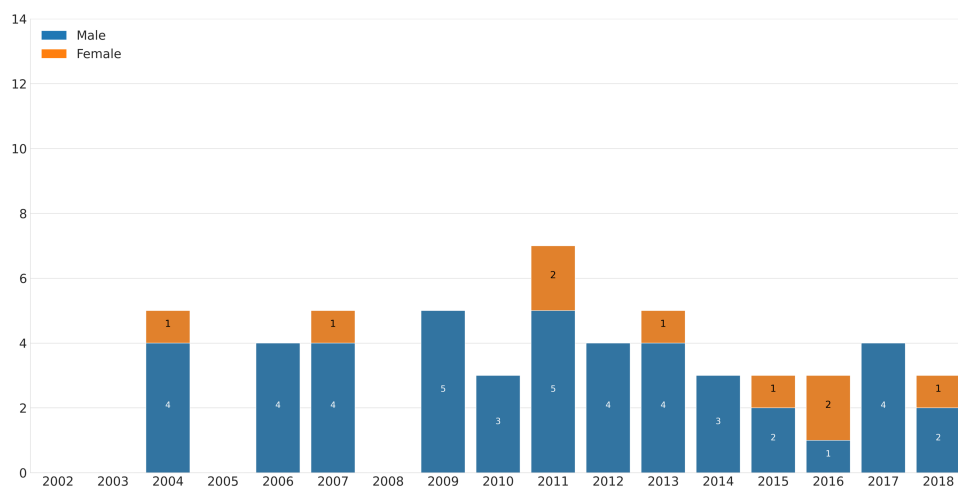
3.10 SSRR



(a) Count of General Chair roles by perceived gender by year



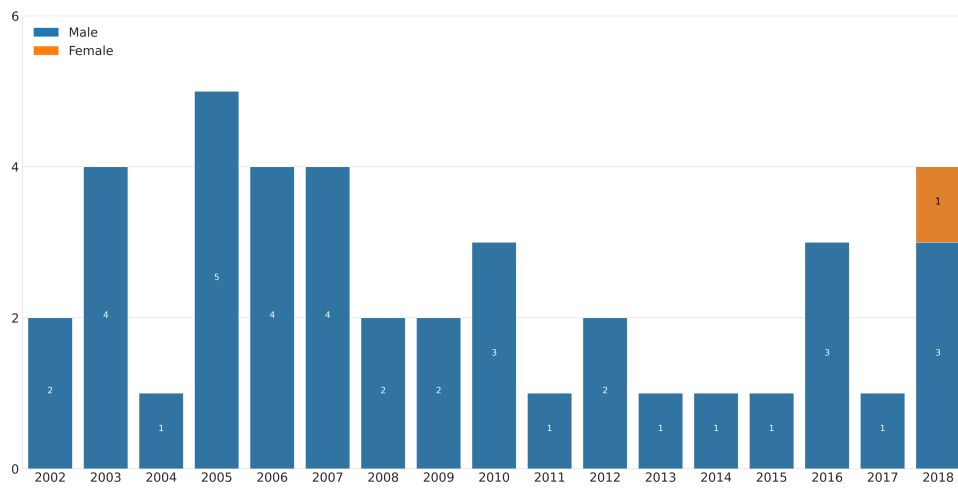
(b) Count of Program Chair roles by perceived gender by year



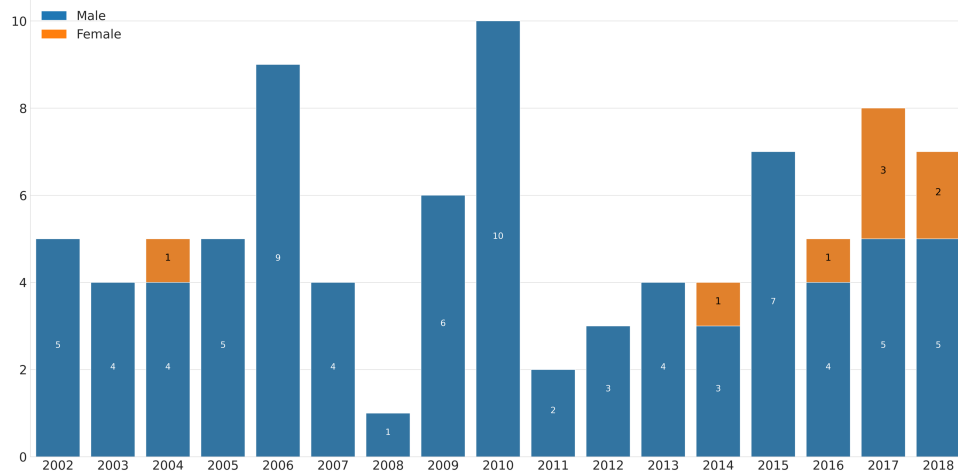
(c) Count of Plenary Speakers by perceived gender by year

Figure 10: SSRR

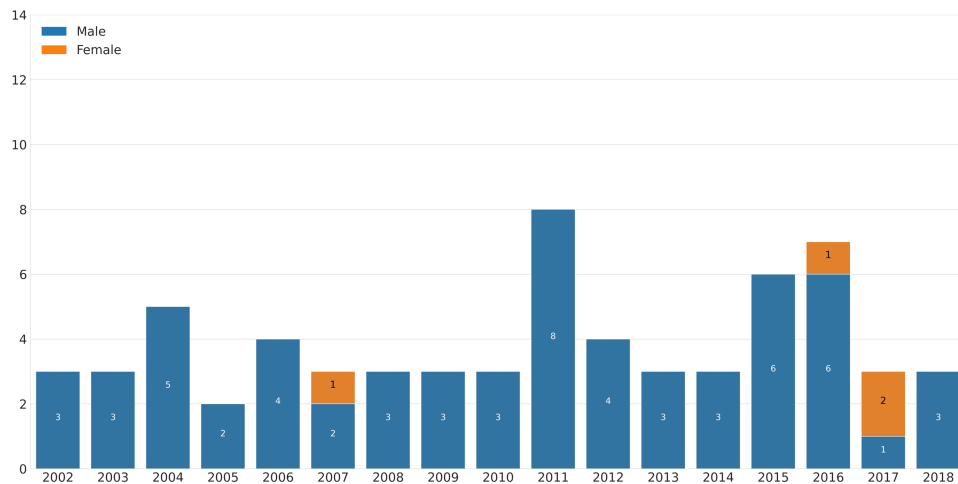
3.11 IROS



(a) Count of General Chair roles by perceived gender by year



(b) Count of Program Chair roles by perceived gender by year



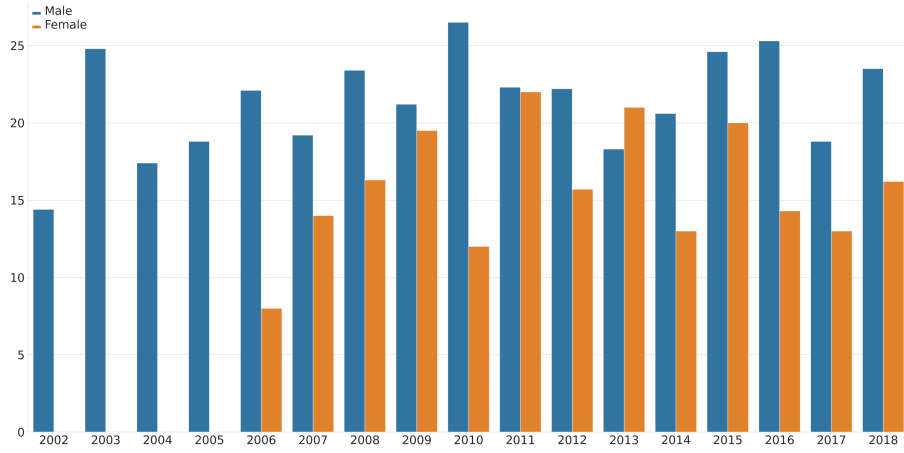
(c) Count of Plenary Speakers by perceived gender by year

Figure 11: IROS

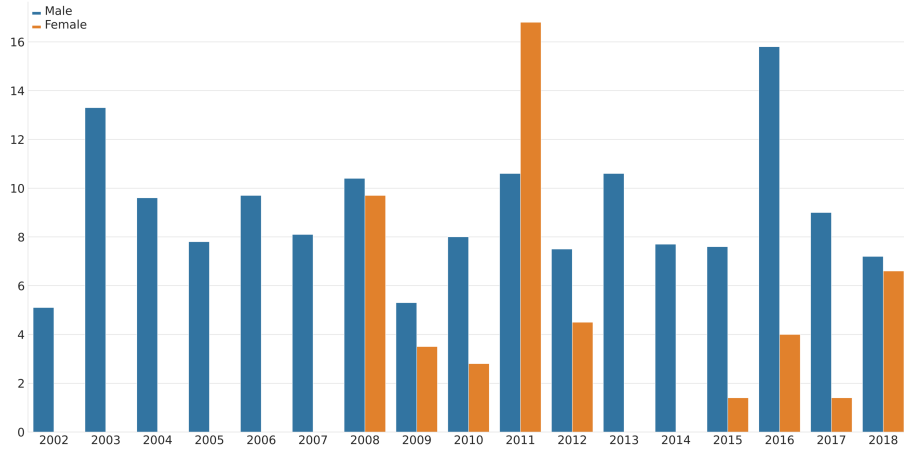
4 Years Since Degree

This section looks at the years since latest degree of General Chairs, Program Chairs, and Plenary Speakers by perceived gender by year. We do not find any significant differences by perceived gender on average. We also note that in many years the number of women per role is very small (often ≤ 3), which makes it challenging to draw any strong conclusions from this data. For this reason we also include the count per role per year by perceived gender in this section.

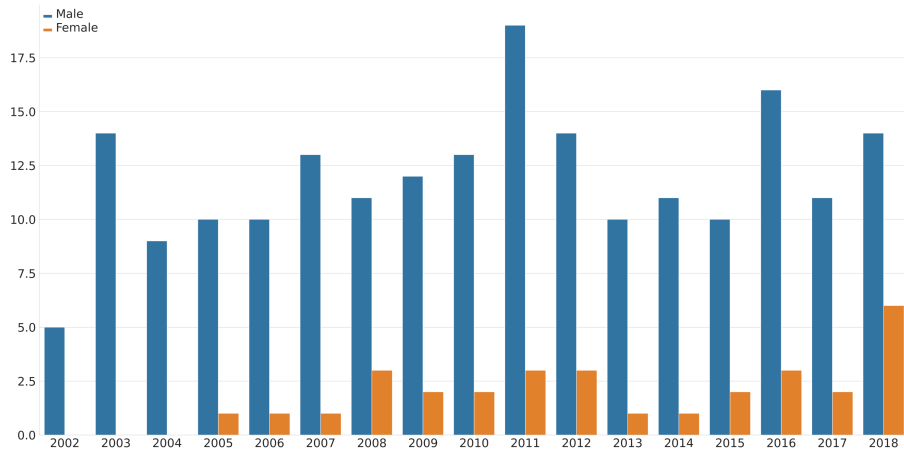
4.1 General Chair



(a) Average years since degree by perceived gender by year



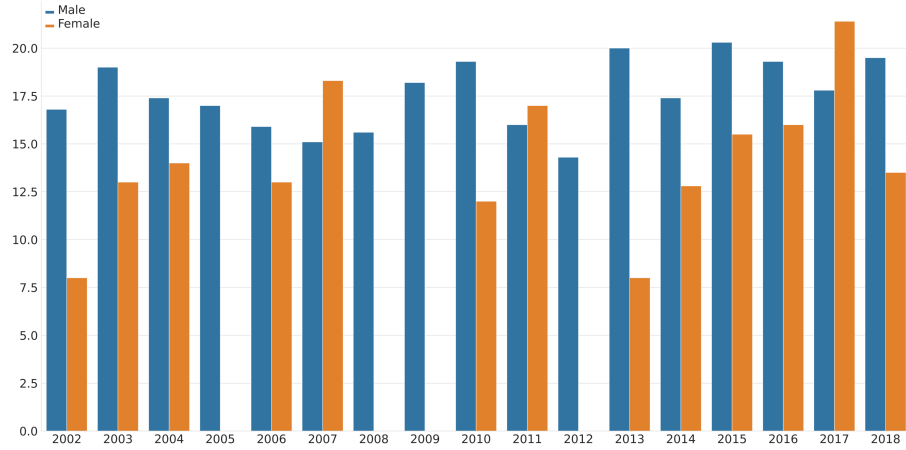
(b) Standard Deviation of years since degree by perceived gender by year



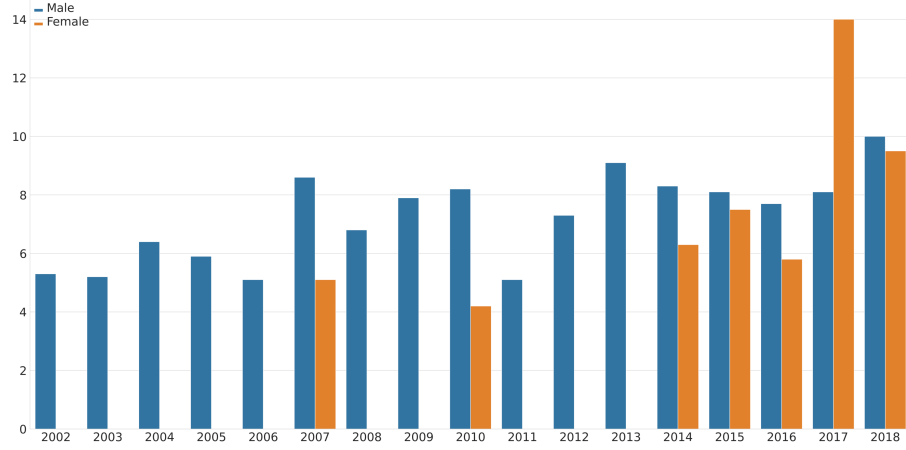
(c) Count of General Chair roles across all conferences by perceived gender by year

Figure 12: General Chair

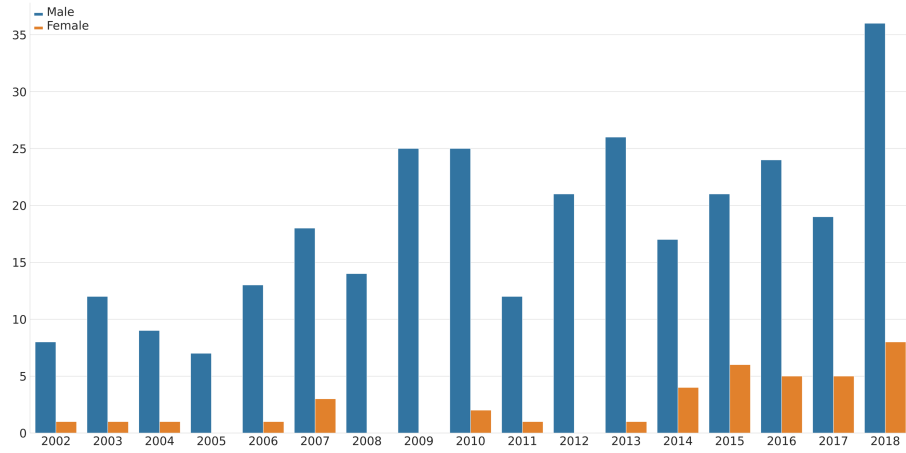
4.2 Program Chair



(a) Average years since degree by perceived gender by year



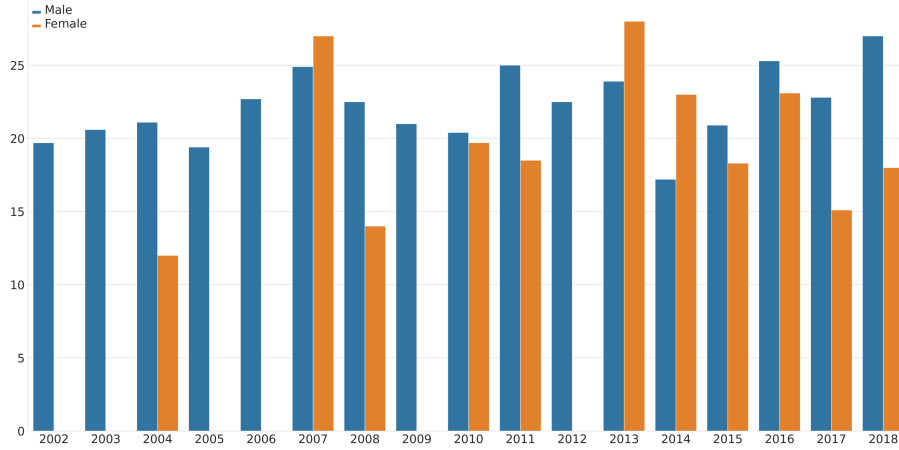
(b) Standard Deviation of years since degree by perceived gender by year



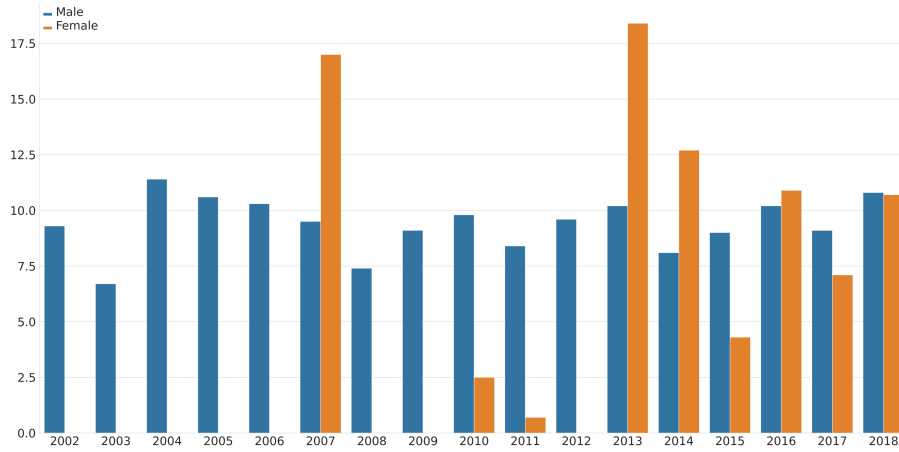
(c) Count of Program Chair roles across all conferences by perceived gender by year

Figure 13: Program Chair

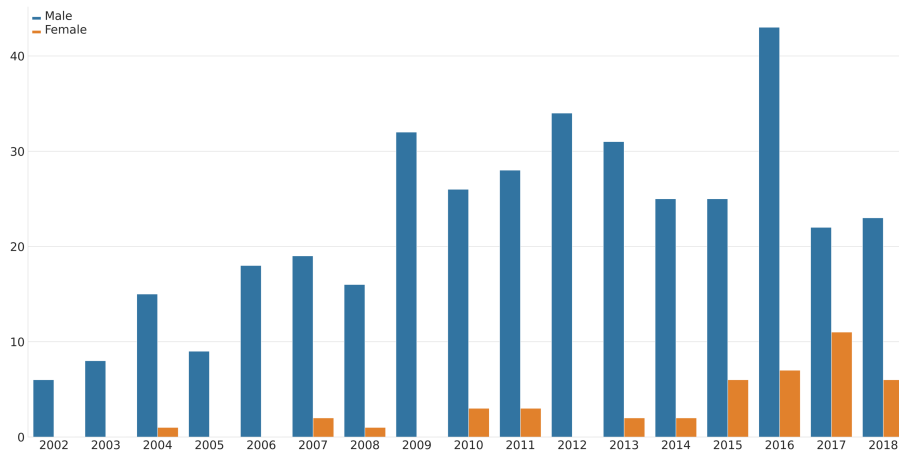
4.3 Plenary Speakers



(a) Average years since degree by perceived gender by year



(b) Standard Deviation of years since degree by perceived gender by year



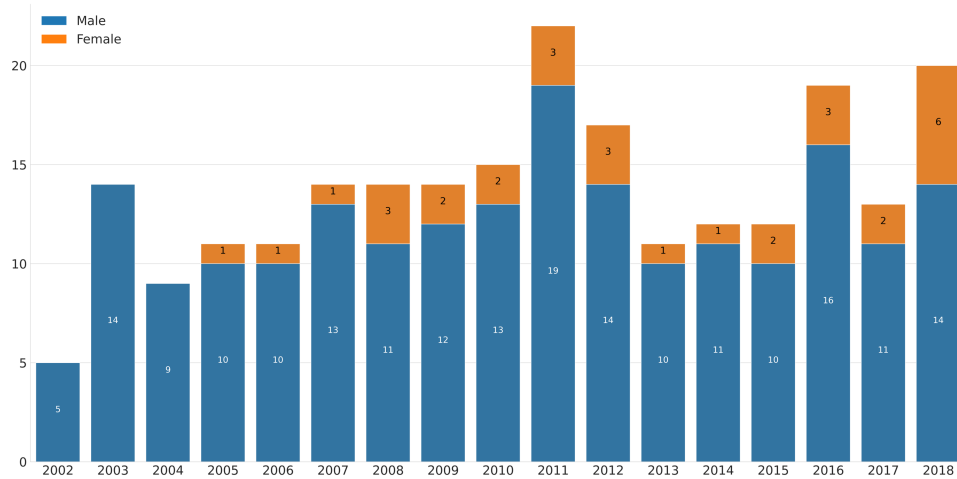
(c) Count of Plenary Speakers across all conferences by perceived gender by year

Figure 14: Plenary Speakers

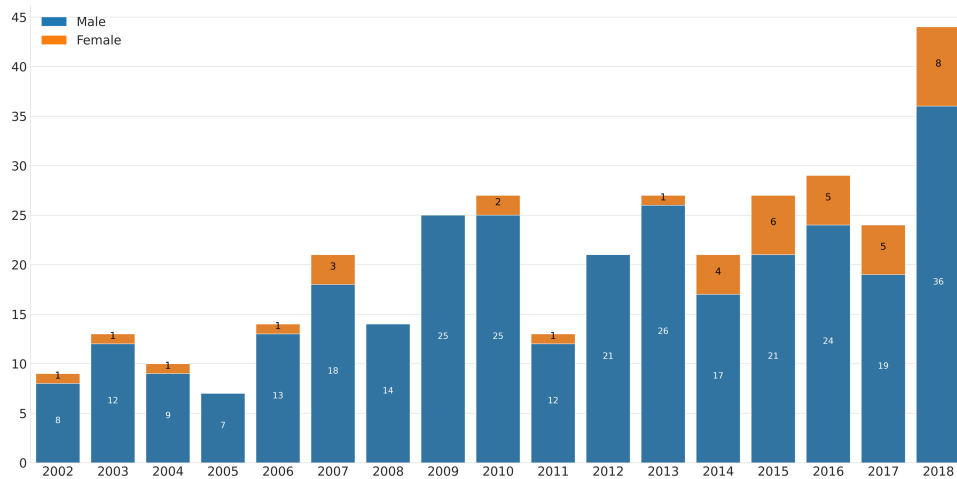
5 Data by Geography by Year

This section contains data on leading roles by country by perceived gender by year, for all countries which hosted a conference in 2002 - 2018.

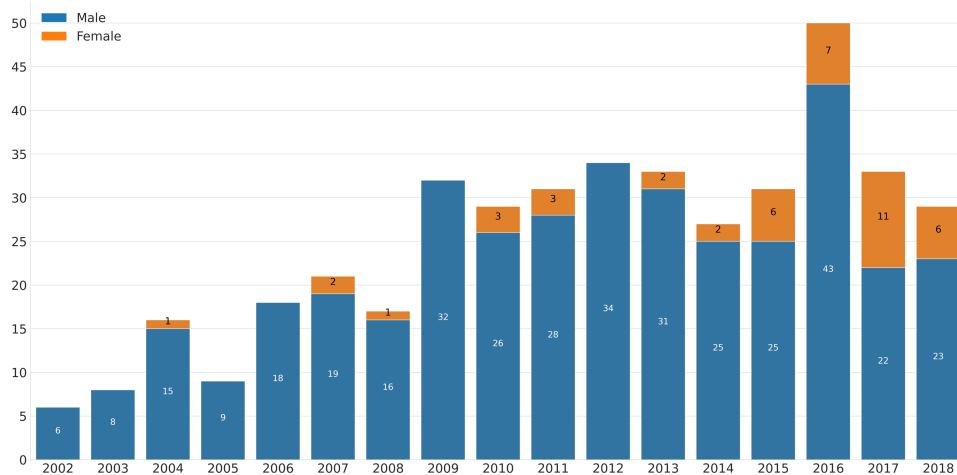
5.1 World



(a) Count of General Chair roles by perceived gender by year



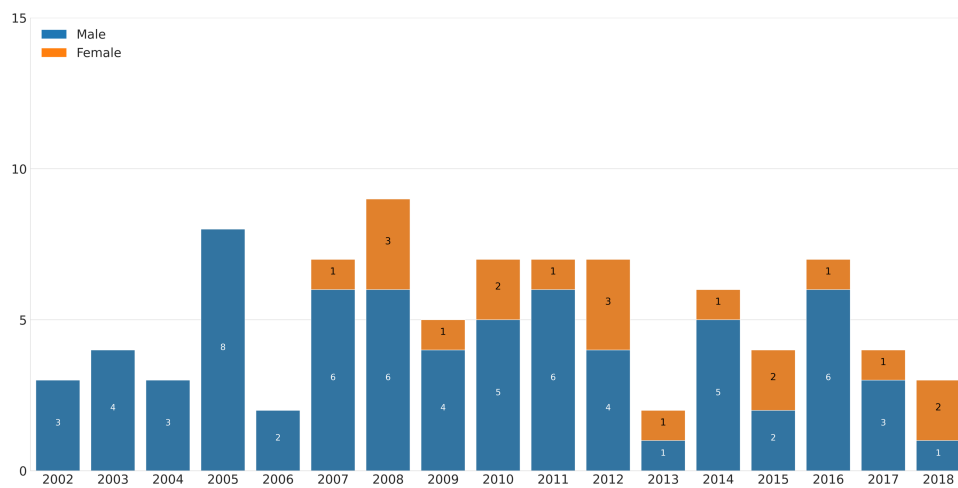
(b) Count of Program Chair roles by perceived gender by year



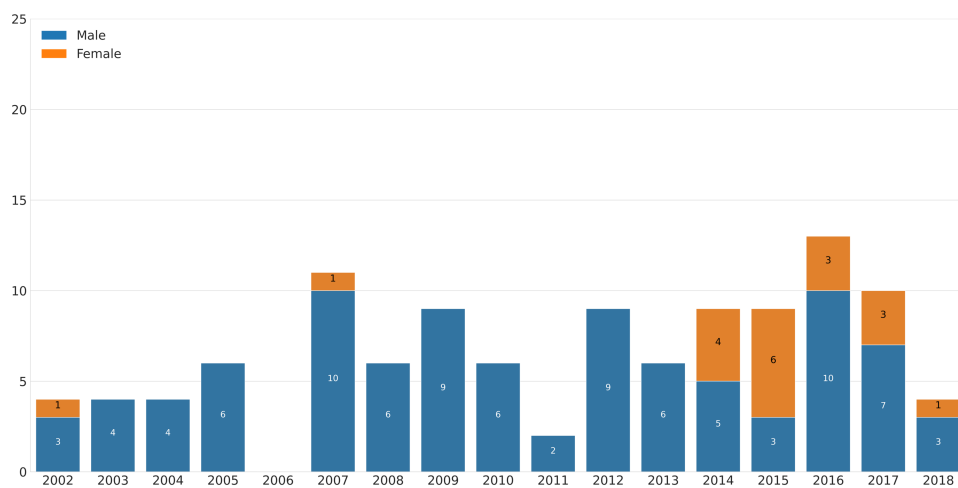
(c) Count of Plenary Speakers by perceived gender by year

Figure 15: World

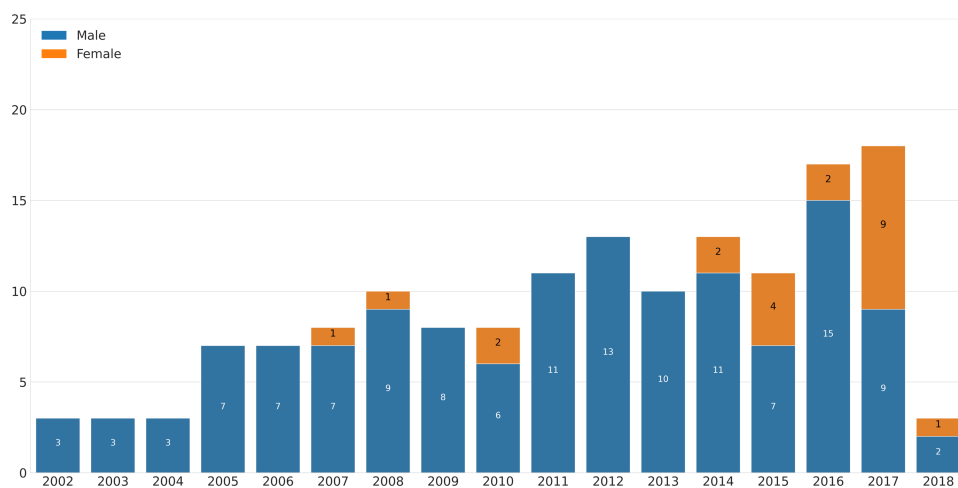
5.2 Americas



(a) Count of General Chair roles by perceived gender by year



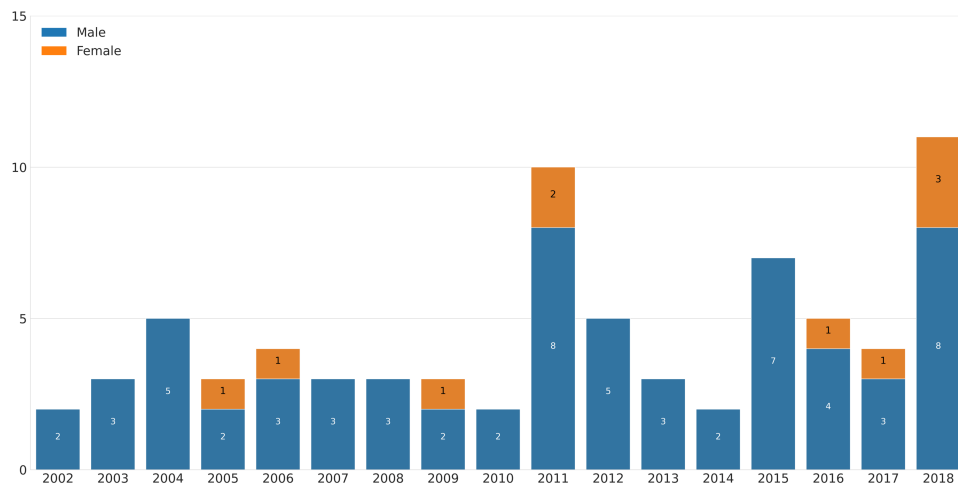
(b) Count of Program Chair roles by perceived gender by year



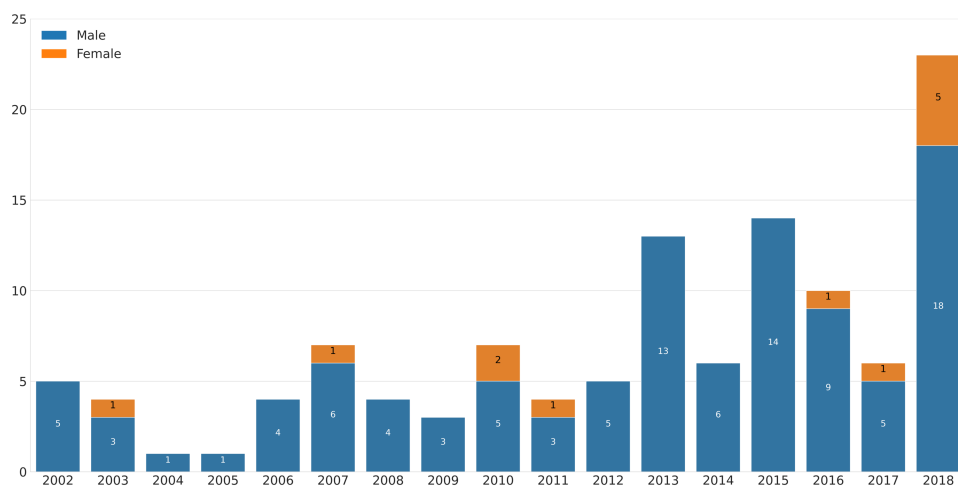
(c) Count of Plenary Speakers by perceived gender by year

Figure 16: Americas

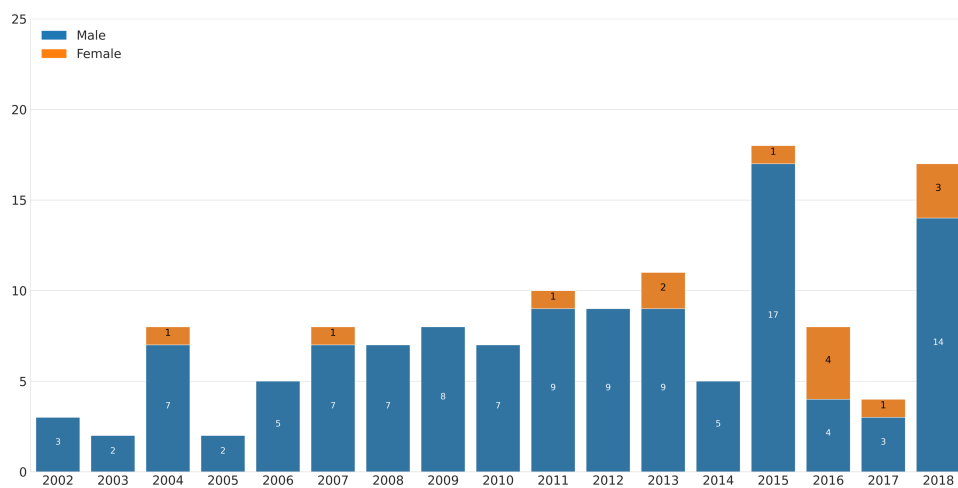
5.3 Europe & Middle East



(a) Count of General Chair roles by perceived gender by year



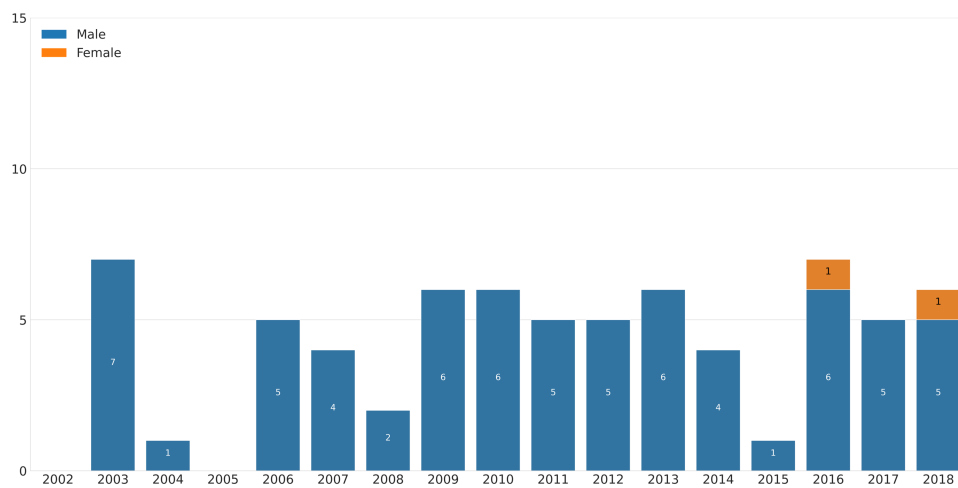
(b) Count of Program Chair roles by perceived gender by year



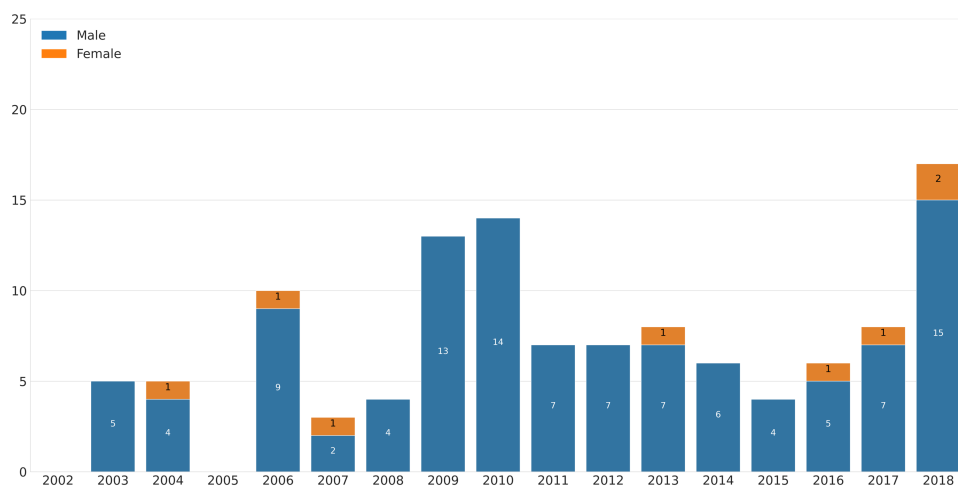
(c) Count of Plenary Speakers by perceived gender by year

Figure 17: Europe & Middle East

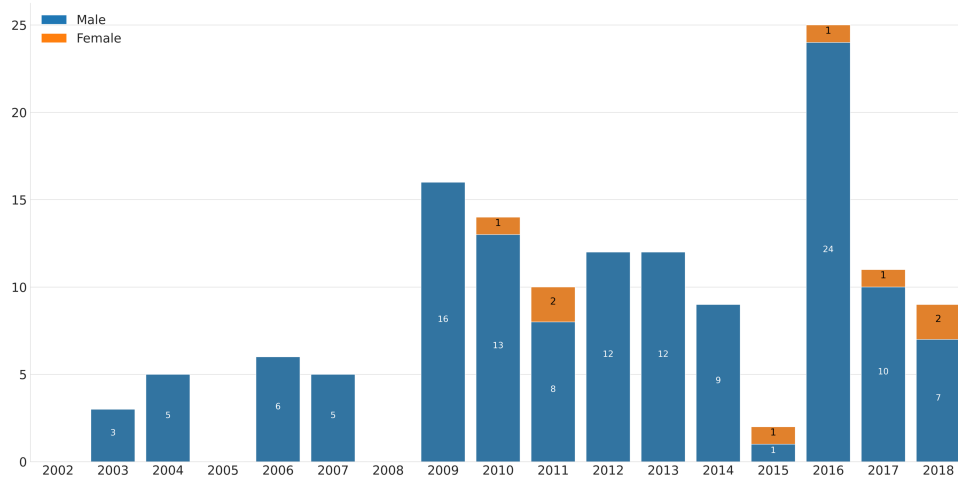
5.4 Asia



(a) Count of General Chair roles by perceived gender by year



(b) Count of Program Chair roles by perceived gender by year

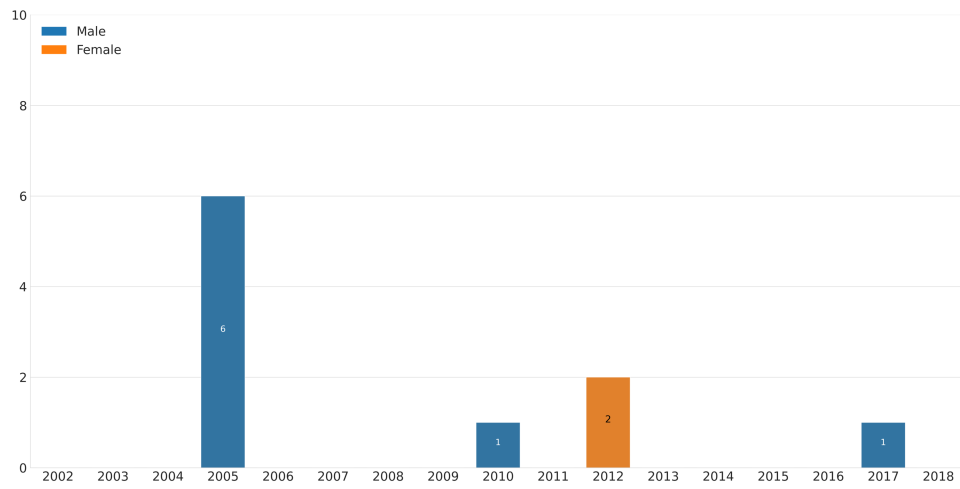


(c) Count of Plenary Speakers by perceived gender by year

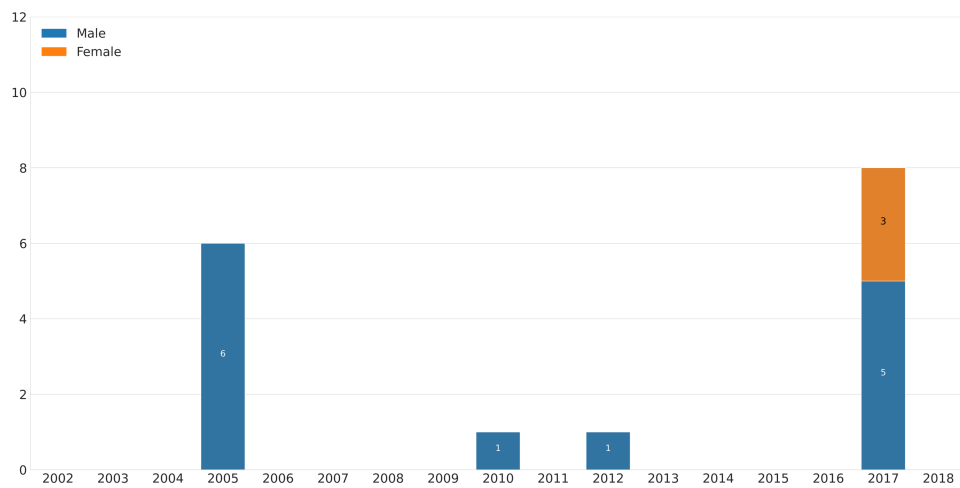
Figure 18: Asia

5.5 Individual Countries

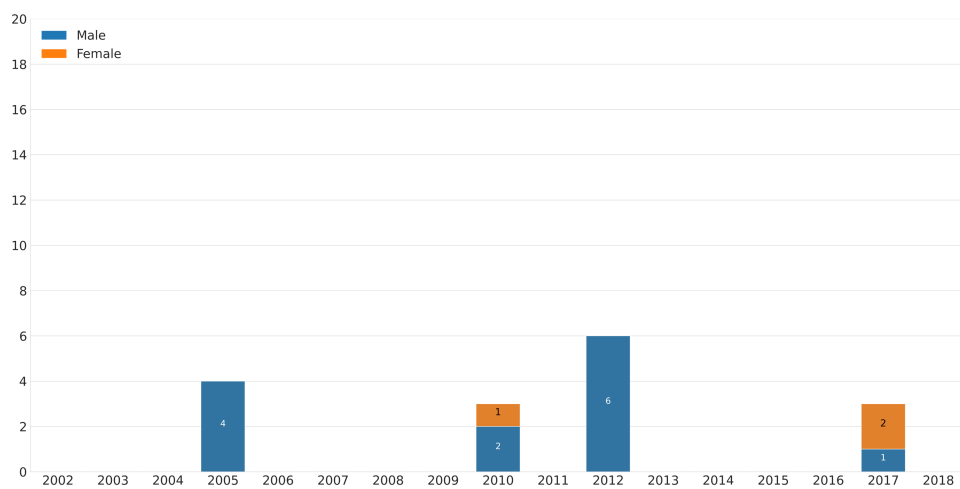
5.5.1 Canada



(a) Count of General Chair roles by perceived gender by year



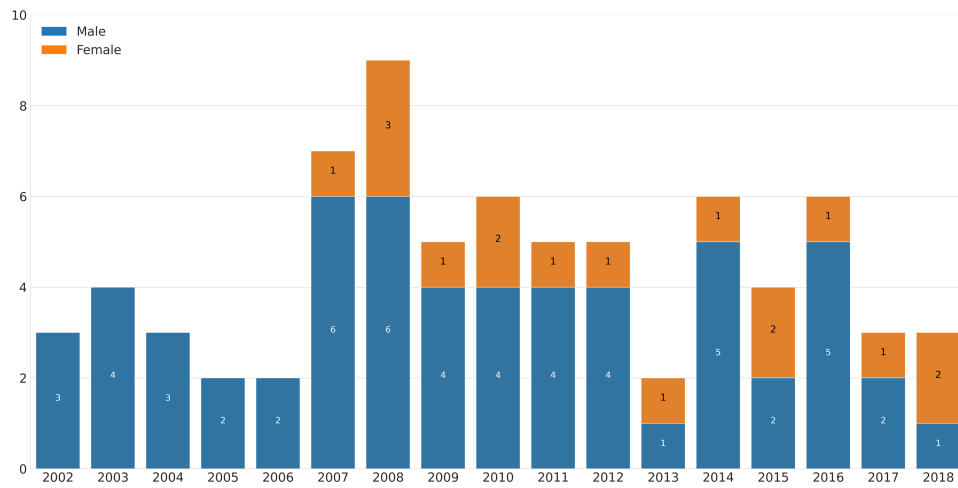
(b) Count of Program Chair roles by by perceived gender by year



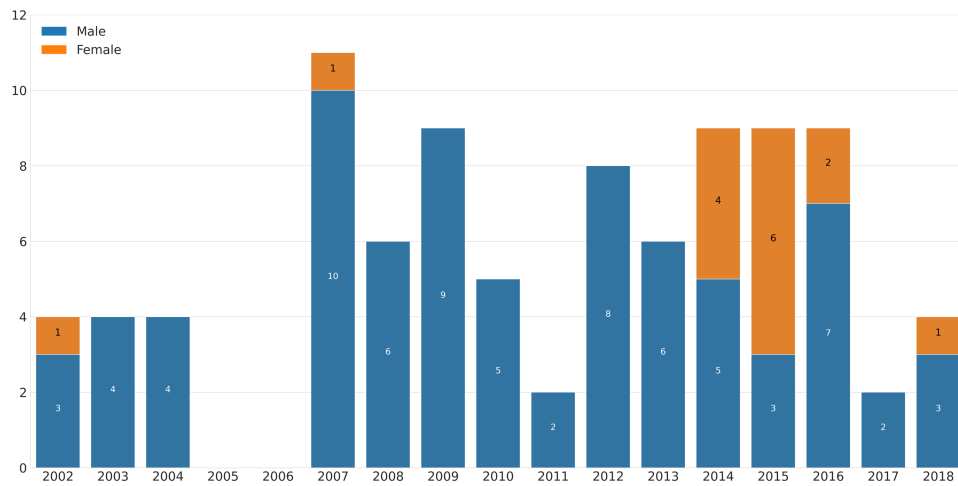
(c) Count of Plenary Speakers by perceived gender by year

Figure 19: Canada

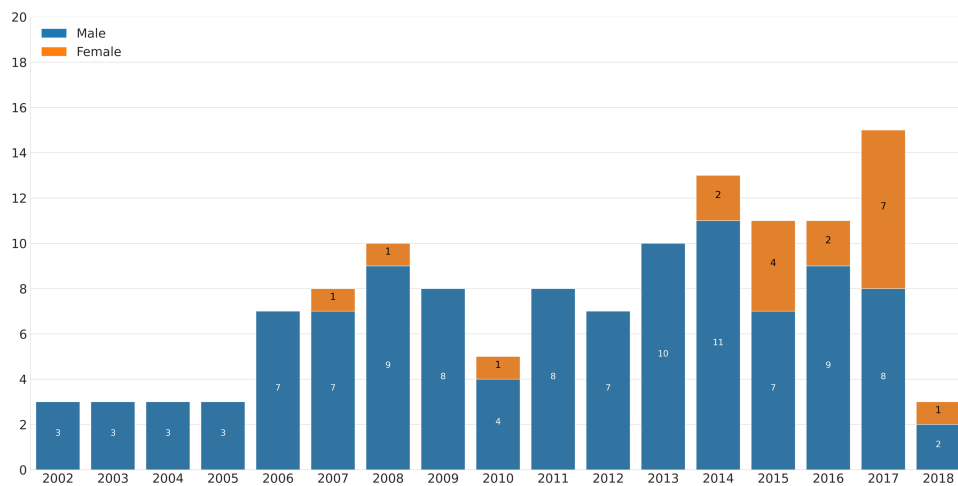
5.5.2 USA



(a) Count of General Chair roles by perceived gender by year



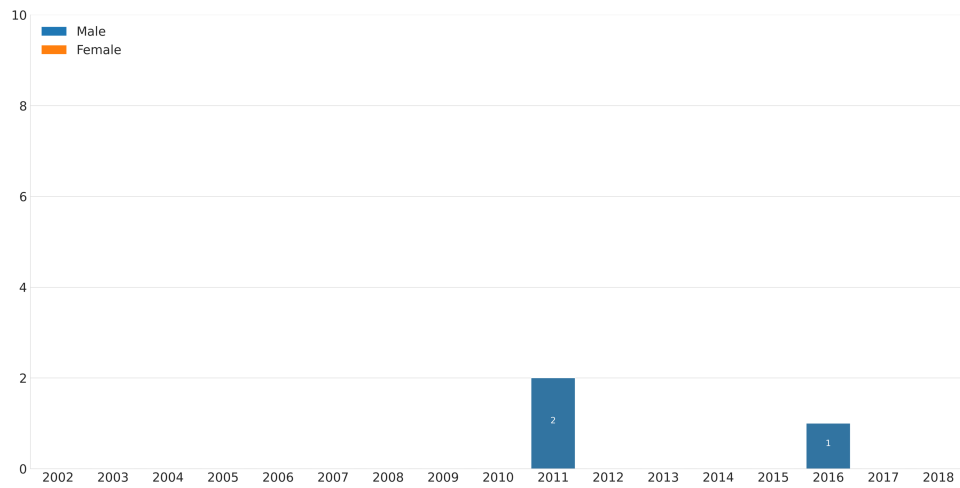
(b) Count of Program Chair roles by by perceived gender by year



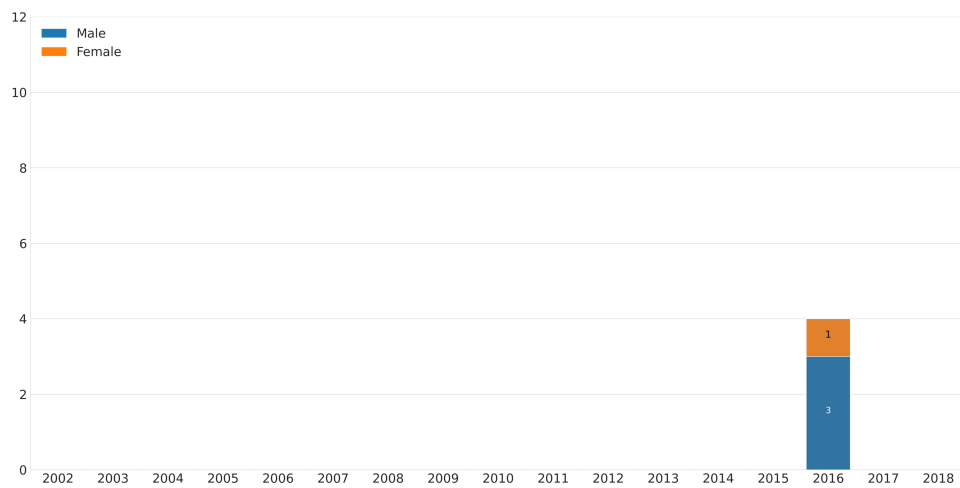
(c) Count of Plenary Speakers by perceived gender by year

Figure 20: USA

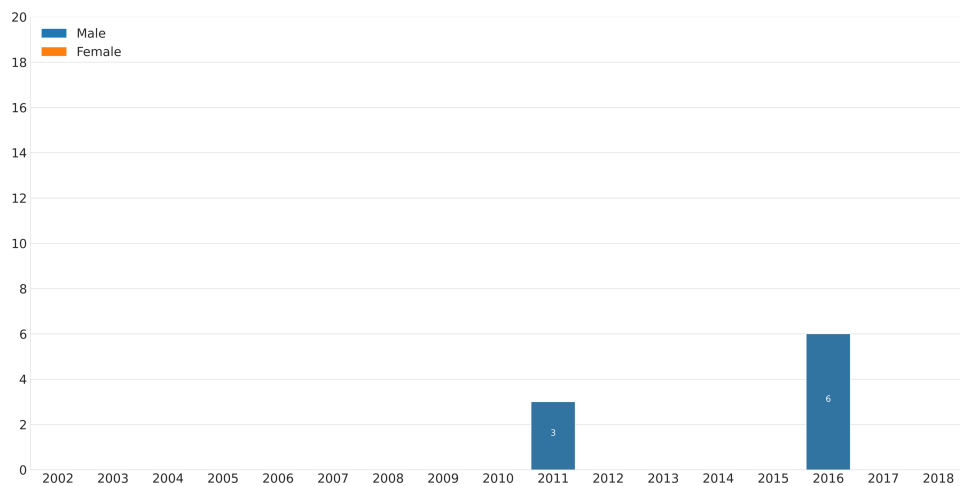
5.5.3 Mexico



(a) Count of General Chair roles by perceived gender by year



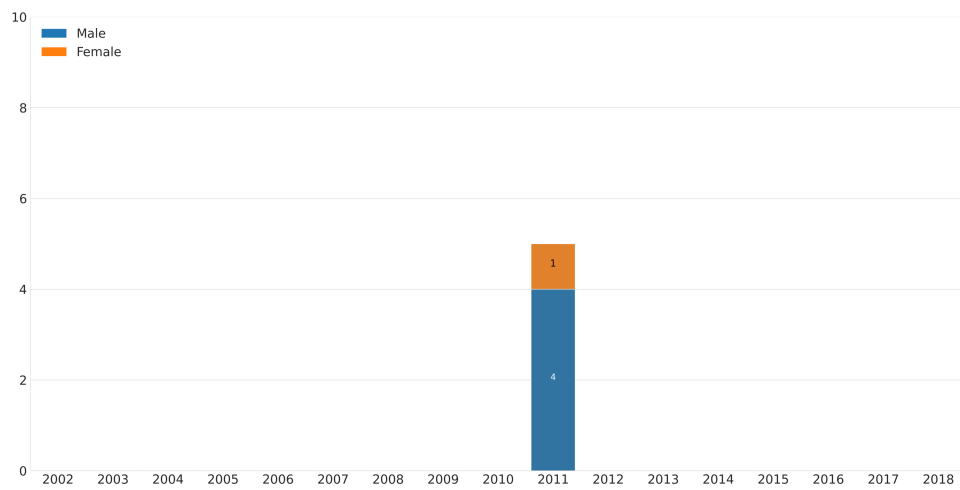
(b) Count of Program Chair roles by by perceived gender by year



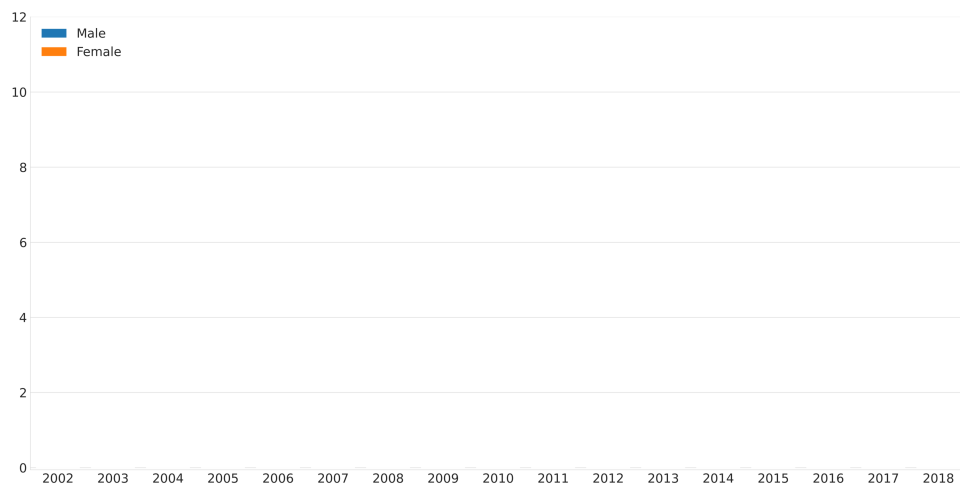
(c) Count of Plenary Speakers by perceived gender by year

Figure 21: Mexico

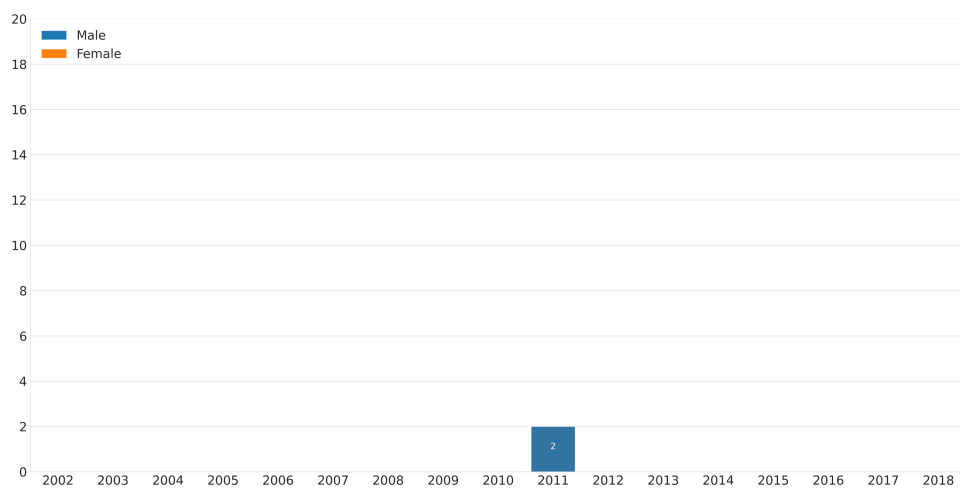
5.5.4 Finland



(a) Count of General Chair roles by perceived gender by year



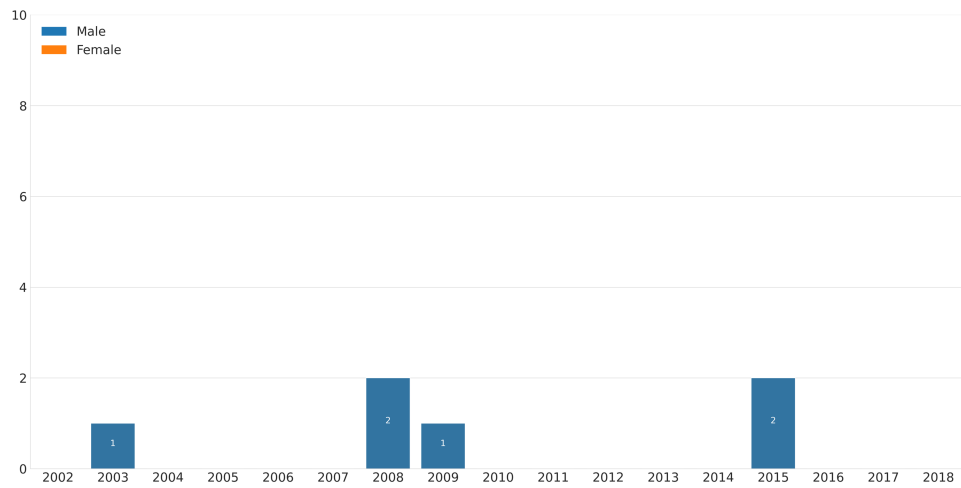
(b) Count of Program Chair roles by perceived gender by year



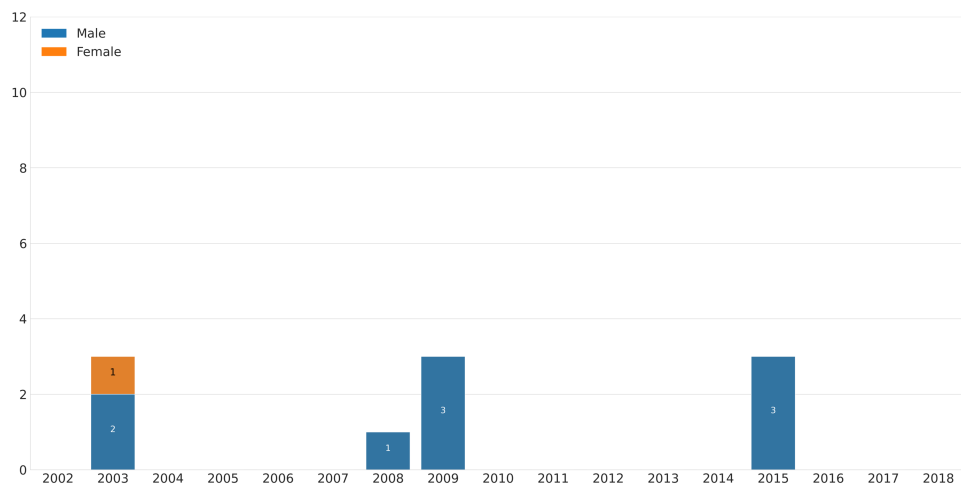
(c) Count of Plenary Speakers by by perceived gender by year

Figure 22: Finland

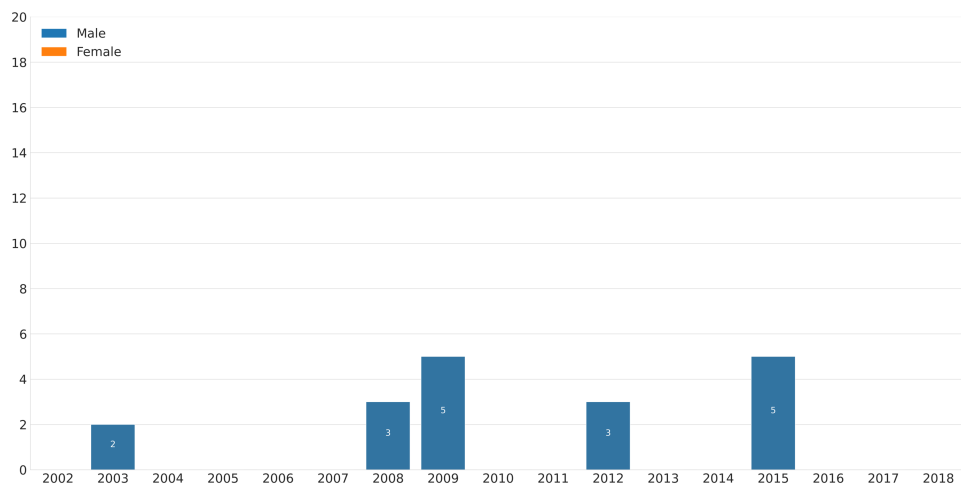
5.5.5 France



(a) Count of General Chair roles by perceived gender by year



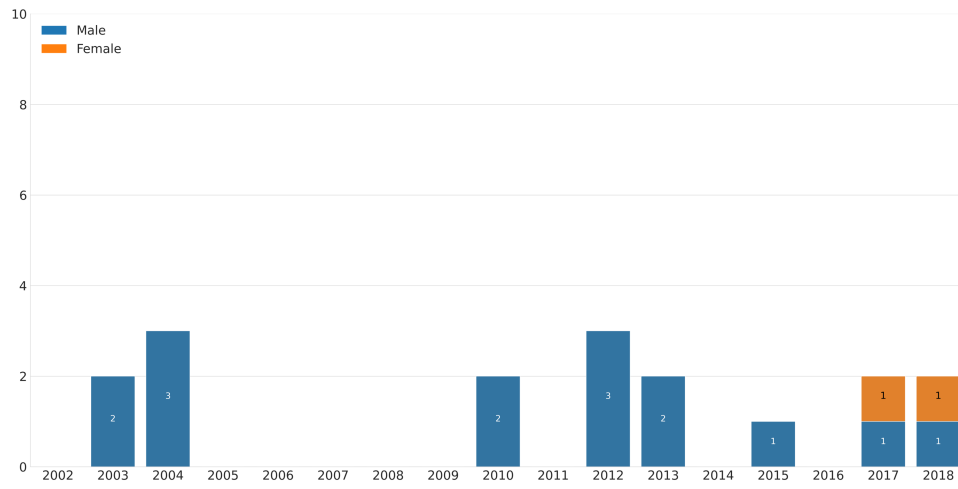
(b) Count of Program Chair roles by perceived gender by year



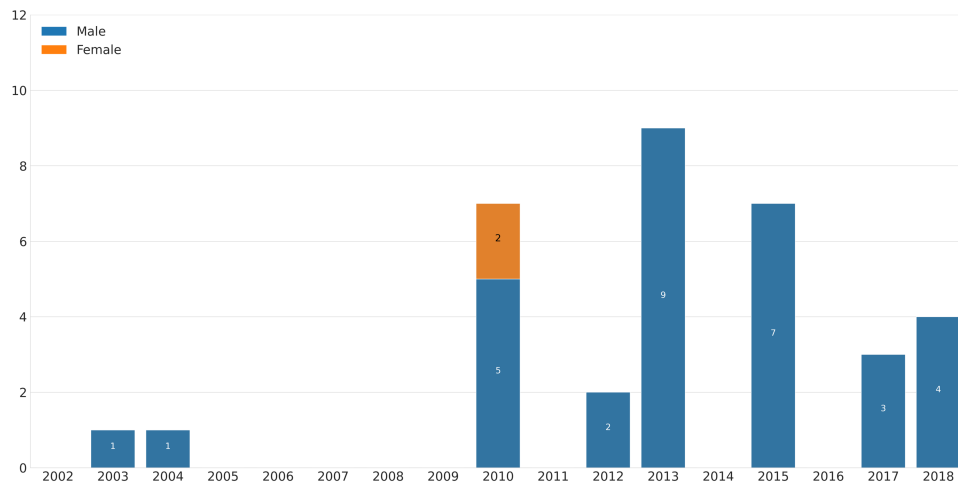
(c) Count of Plenary Speakers by by perceived gender by year

Figure 23: France

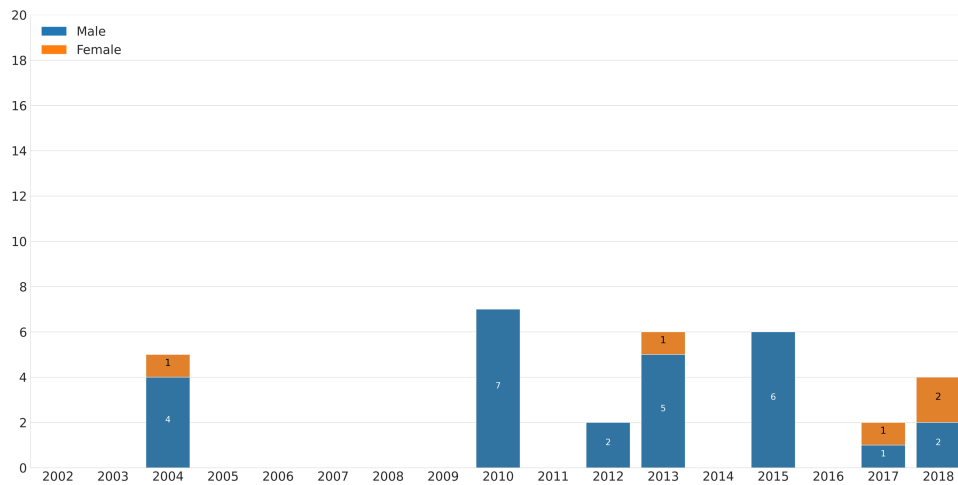
5.5.6 Germany



(a) Count of General Chair roles by perceived gender by year



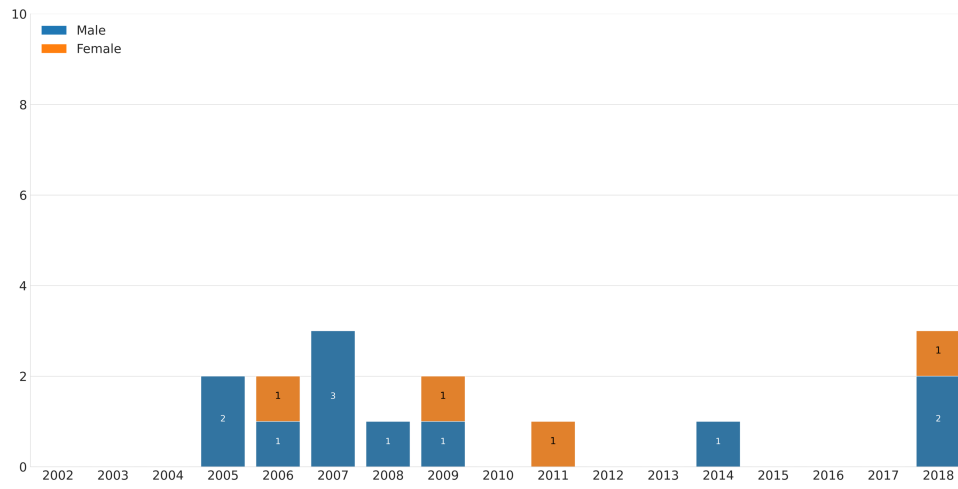
(b) Count of Program Chair roles by perceived gender by year



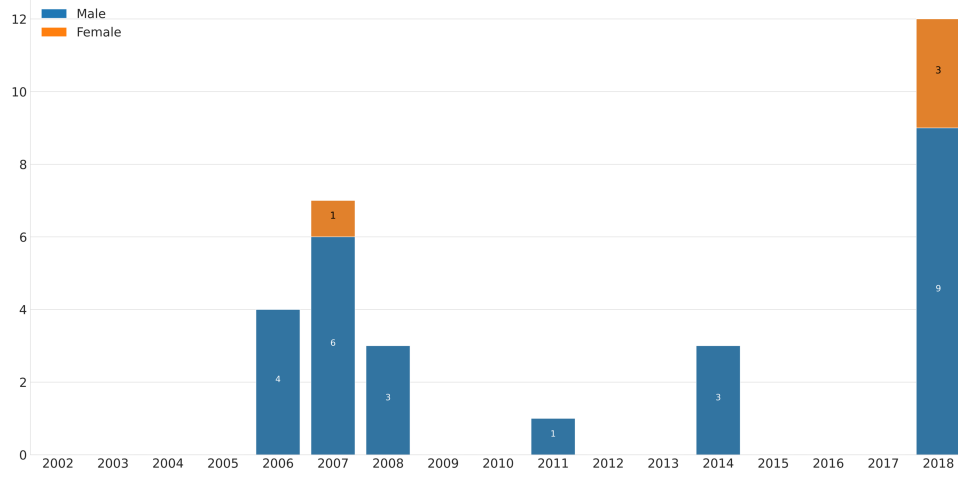
(c) Count of Plenary Speakers by by perceived gender by year

Figure 24: Germany

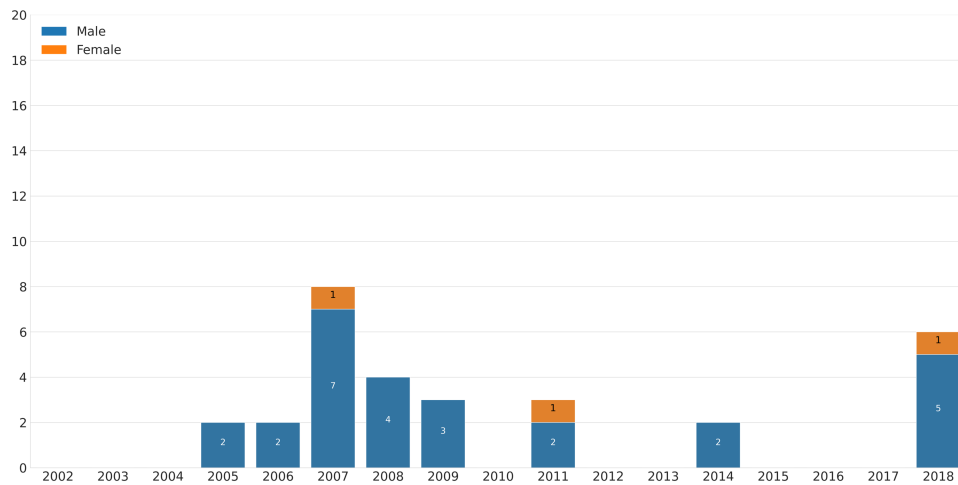
5.5.7 Italy



(a) Count of General Chair roles by perceived gender by year



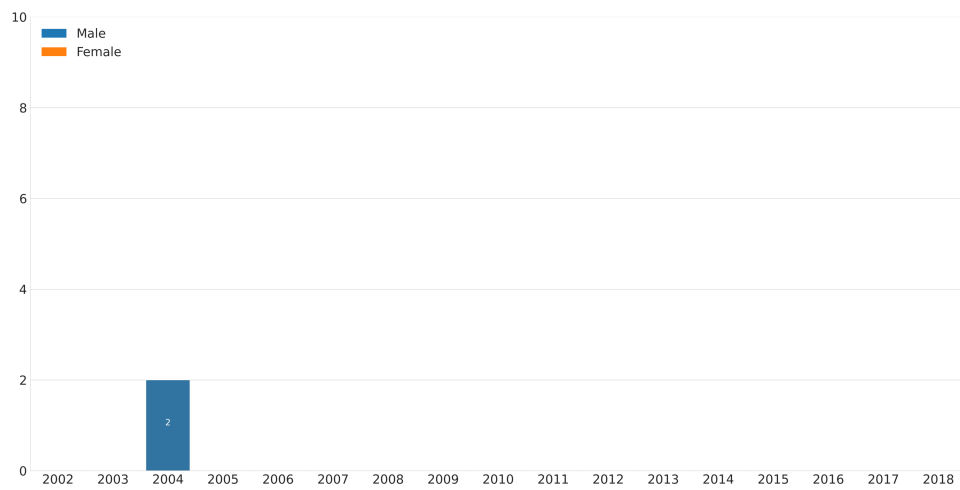
(b) Count of Program Chair roles by perceived gender by year



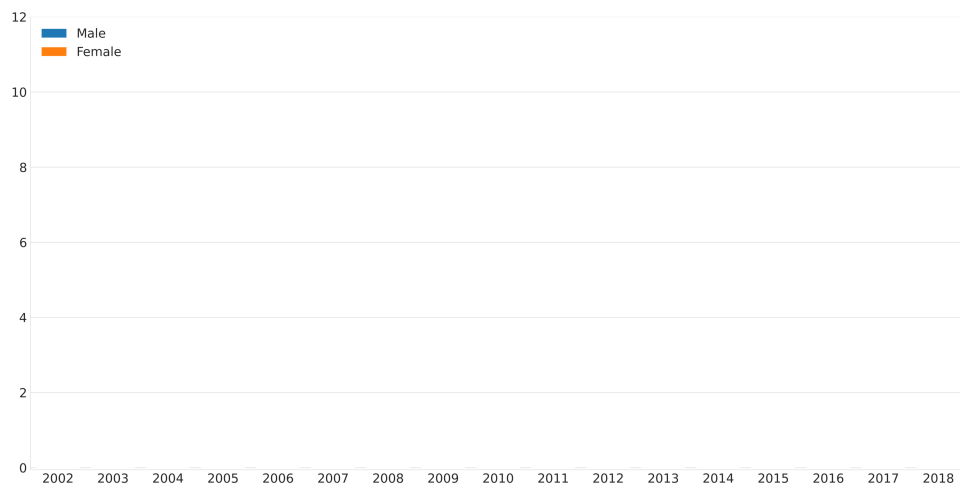
(c) Count of Plenary Speakers by perceived gender by year

Figure 25: Italy

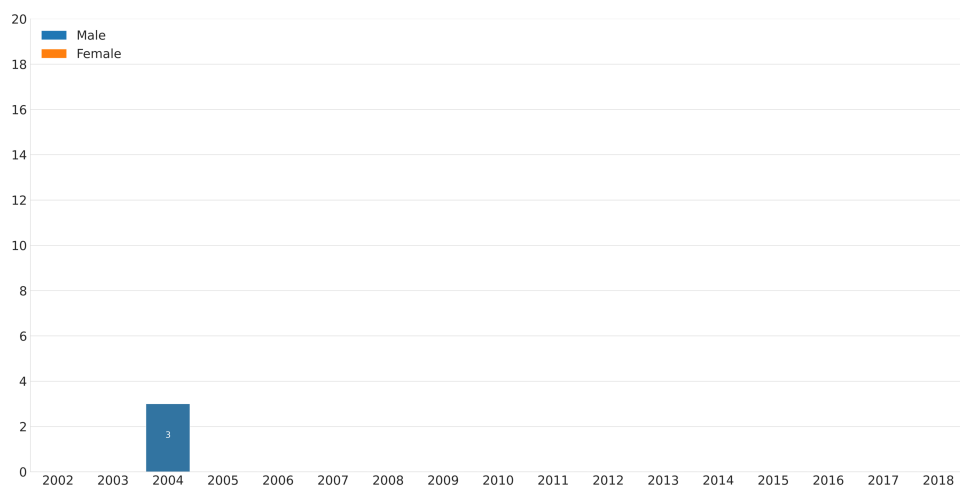
5.5.8 Netherlands



(a) Count of General Chair roles by perceived gender by year



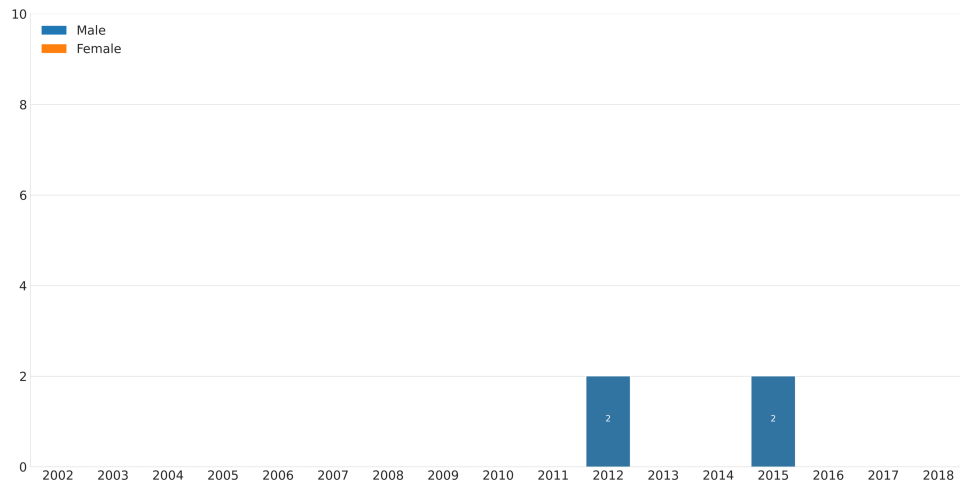
(b) Count of Program Chair roles by perceived gender by year



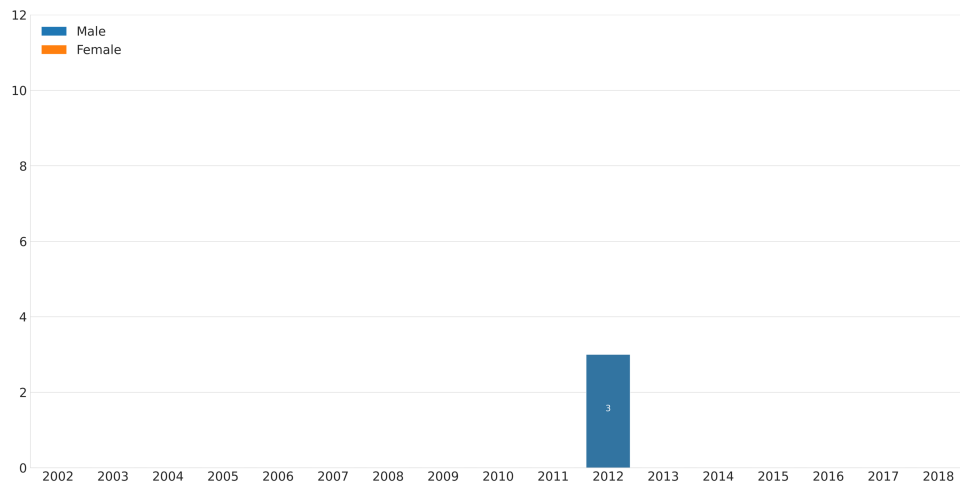
(c) Count of Plenary Speakers by by perceived gender by year

Figure 26: Netherlands

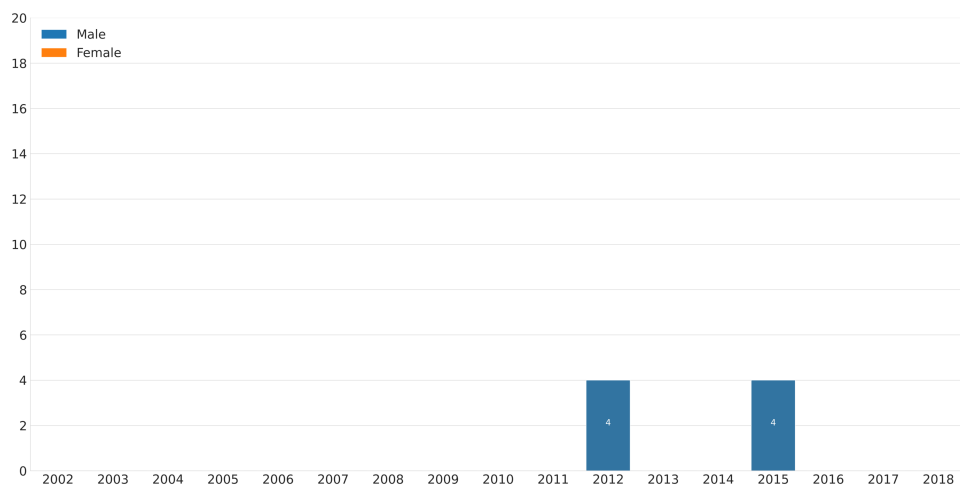
5.5.9 Portugal



(a) Count of General Chair roles by perceived gender by year



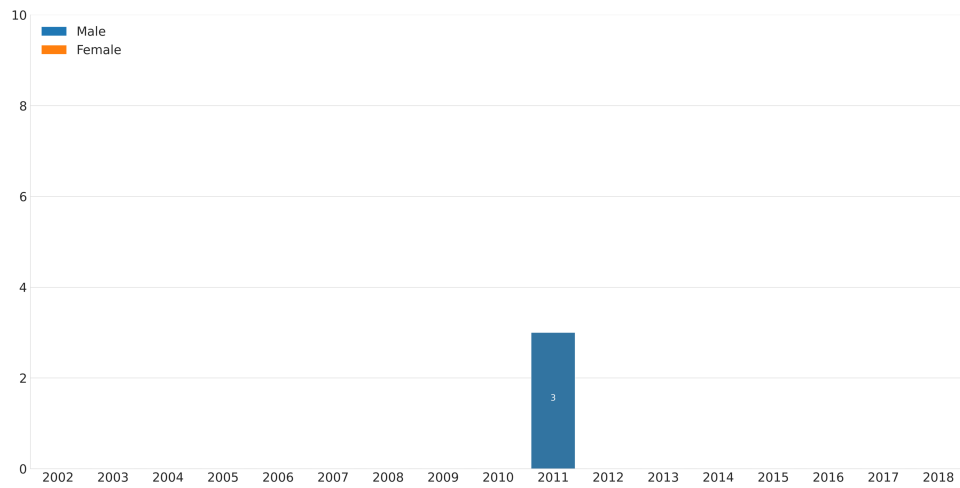
(b) Count of Program Chair roles by perceived gender by year



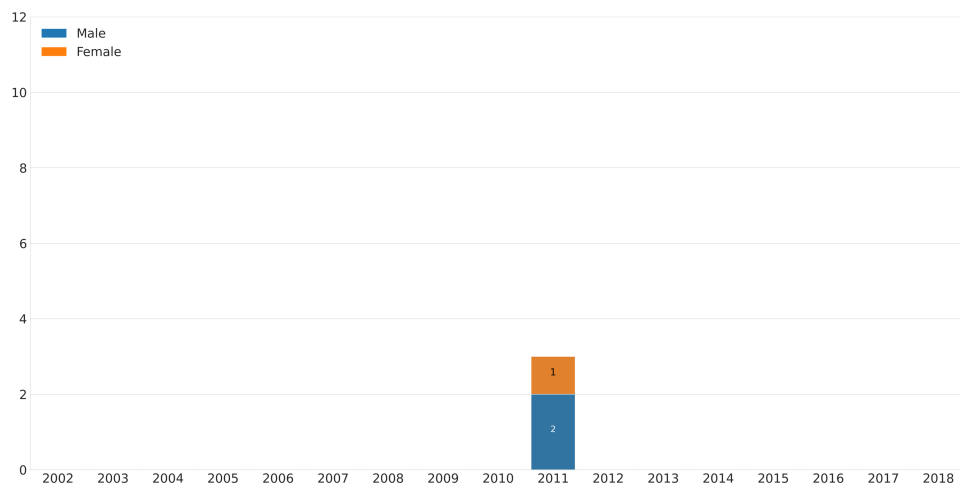
(c) Count of Plenary Speakers by by perceived gender by year

Figure 27: Portugal

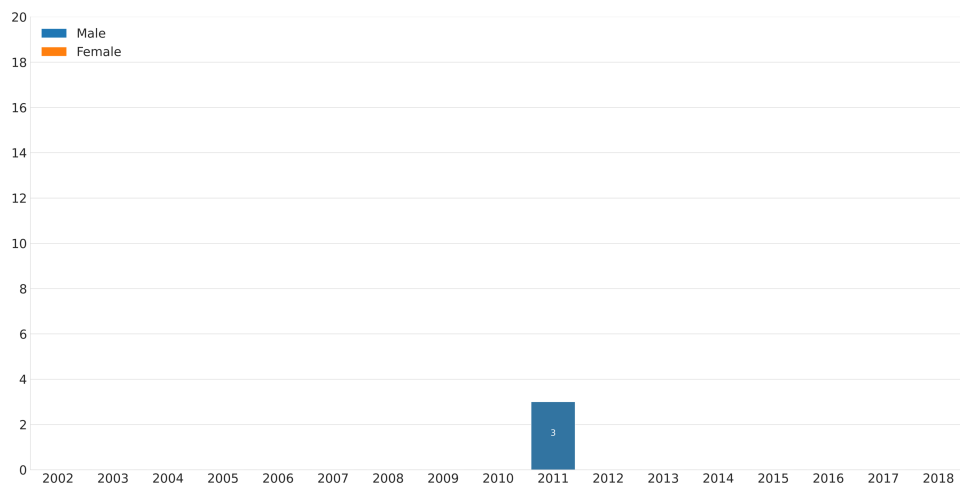
5.5.10 Slovenia



(a) Count of General Chair roles by perceived gender by year



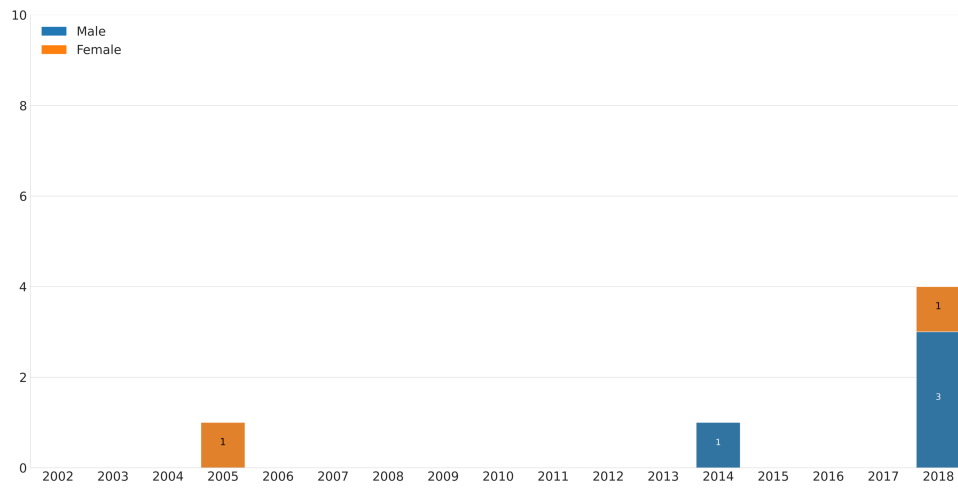
(b) Count of Program Chair roles by perceived gender by year



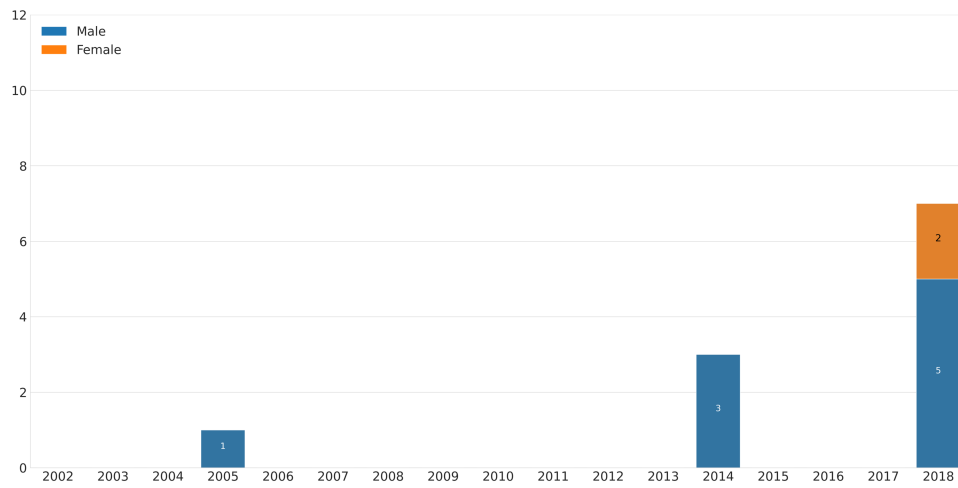
(c) Count of Plenary Speakers by by perceived gender by year

Figure 28: Slovenia

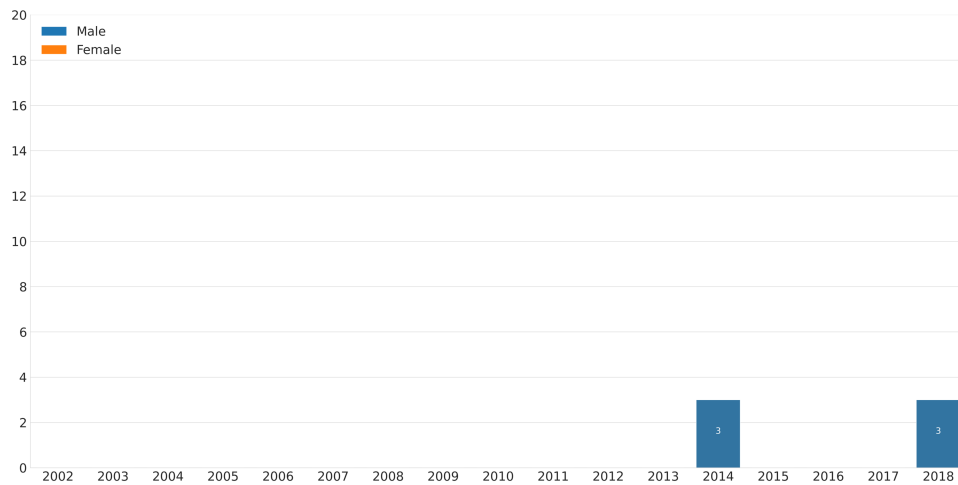
5.5.11 Spain



(a) Count of General Chair roles by perceived gender by year



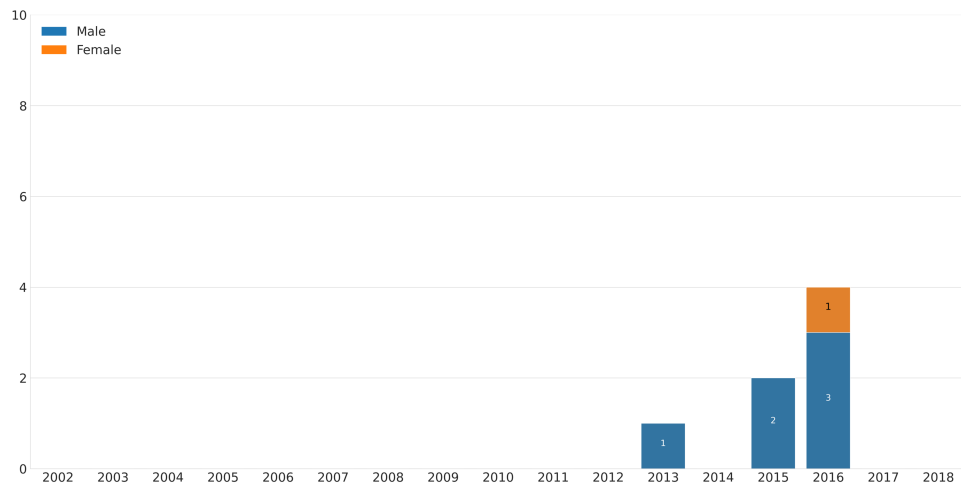
(b) Count of Program Chair roles by perceived gender by year



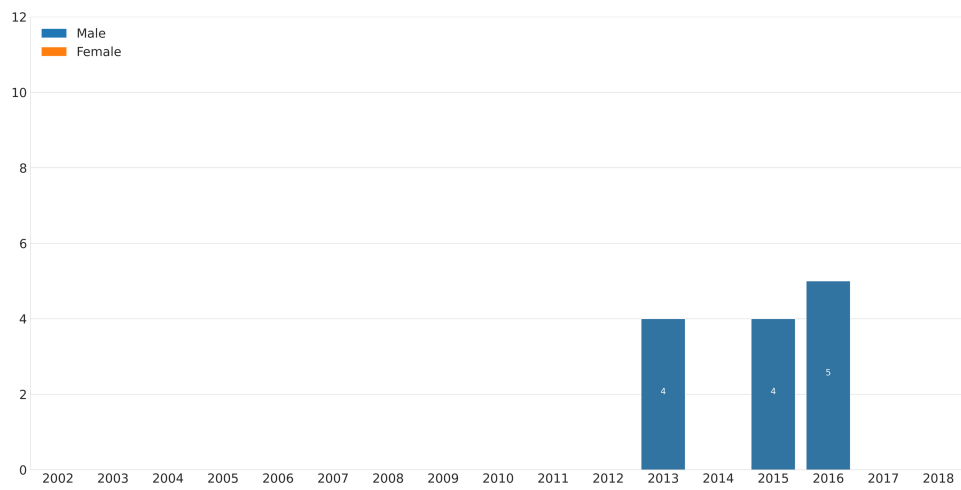
(c) Count of Plenary Speakers by by perceived gender by year

Figure 29: Spain

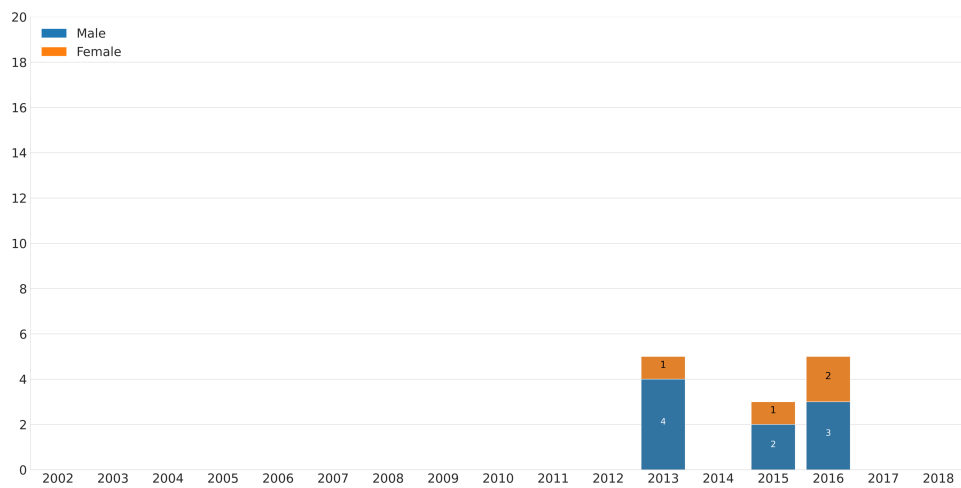
5.5.12 Sweden



(a) Count of General Chair roles by perceived gender by year



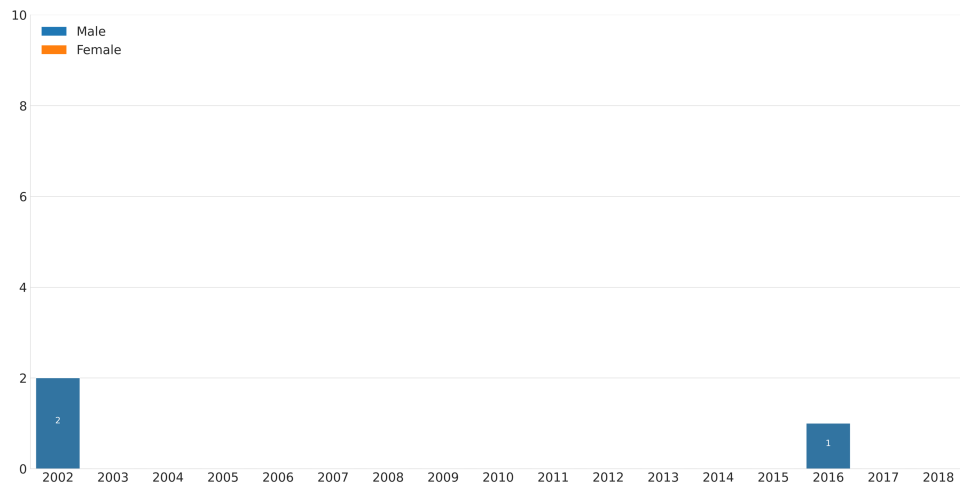
(b) Count of Program Chair roles by perceived gender by year



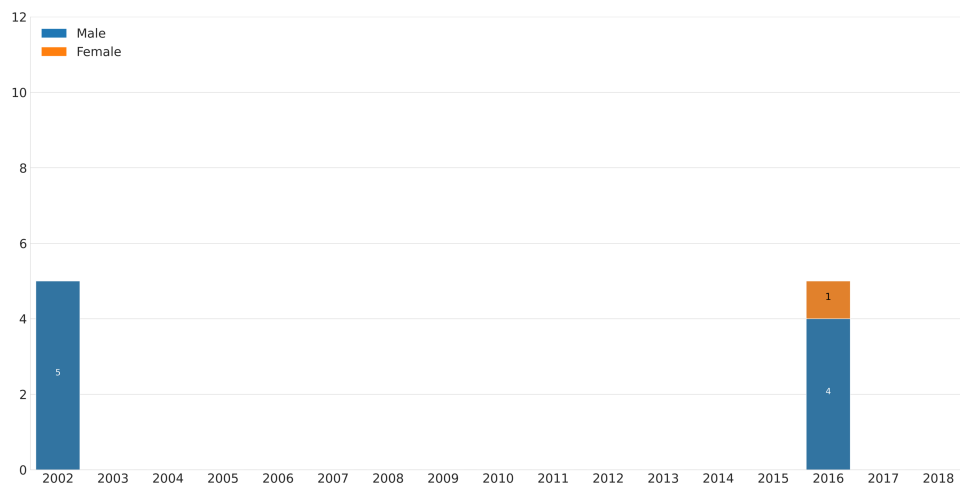
(c) Count of Plenary Speakers by by perceived gender by year

Figure 30: Sweden

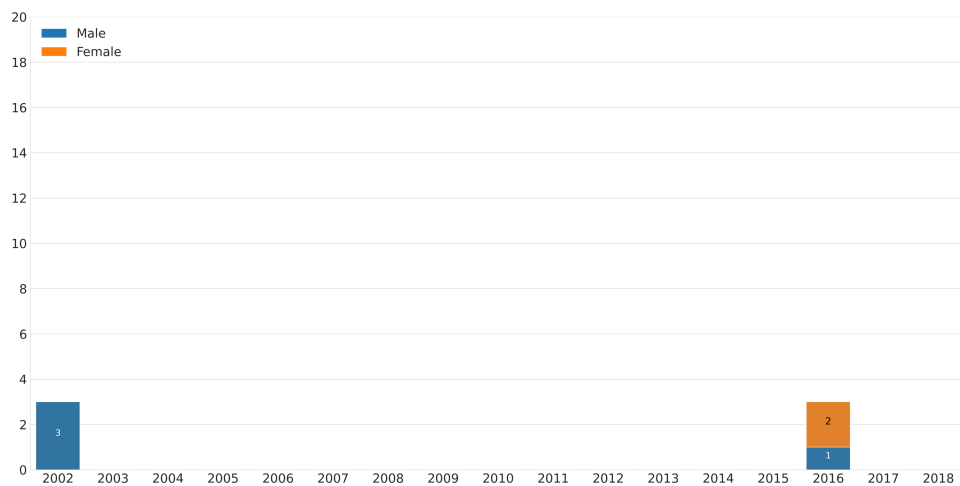
5.5.13 Switzerland



(a) Count of General Chair roles by perceived gender by year



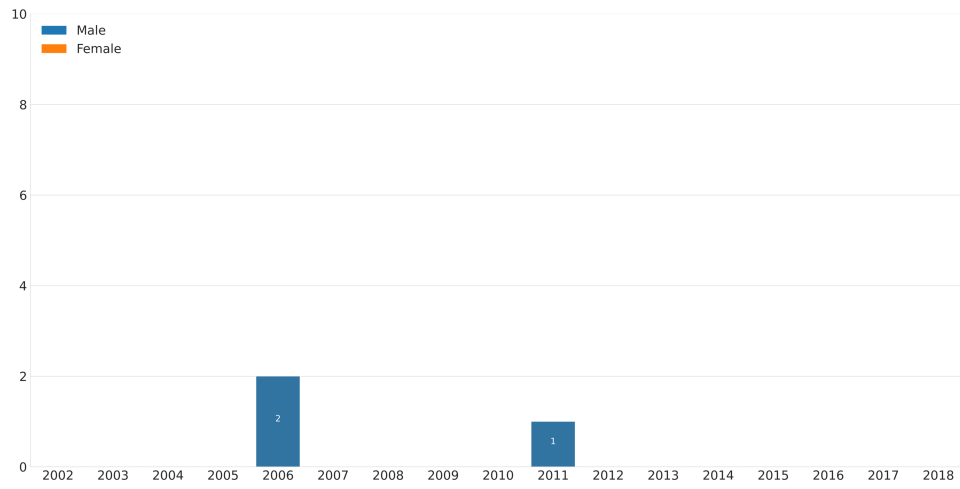
(b) Count of Program Chair roles by perceived gender by year



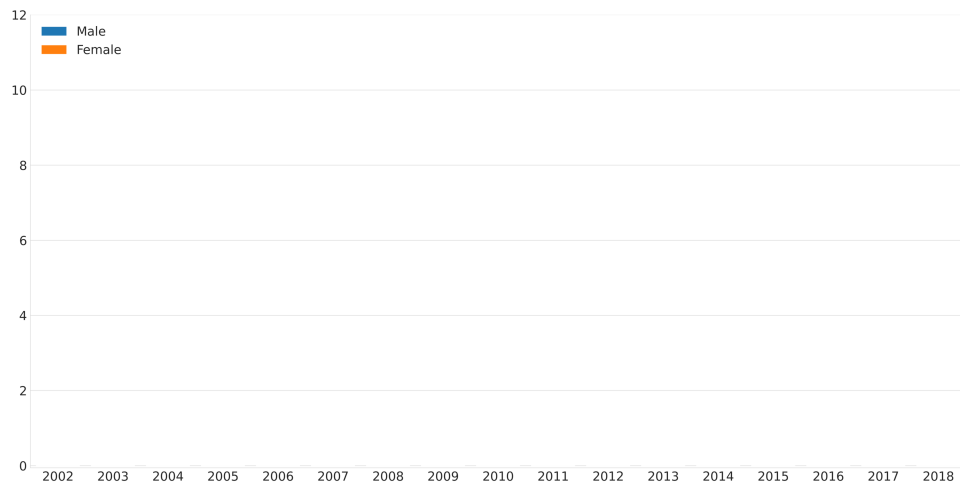
(c) Count of Plenary Speakers by by perceived gender by year

Figure 31: Switzerland

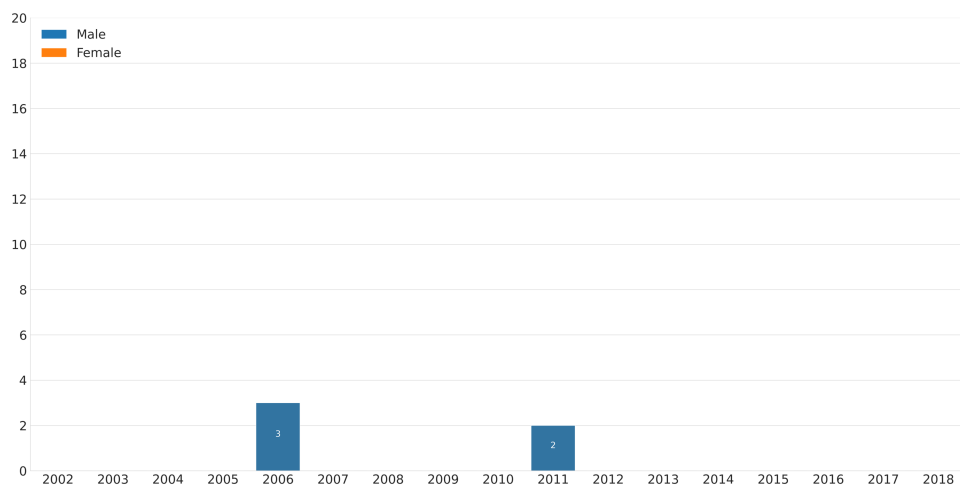
5.5.14 Turkey



(a) Count of General Chair roles by perceived gender by year



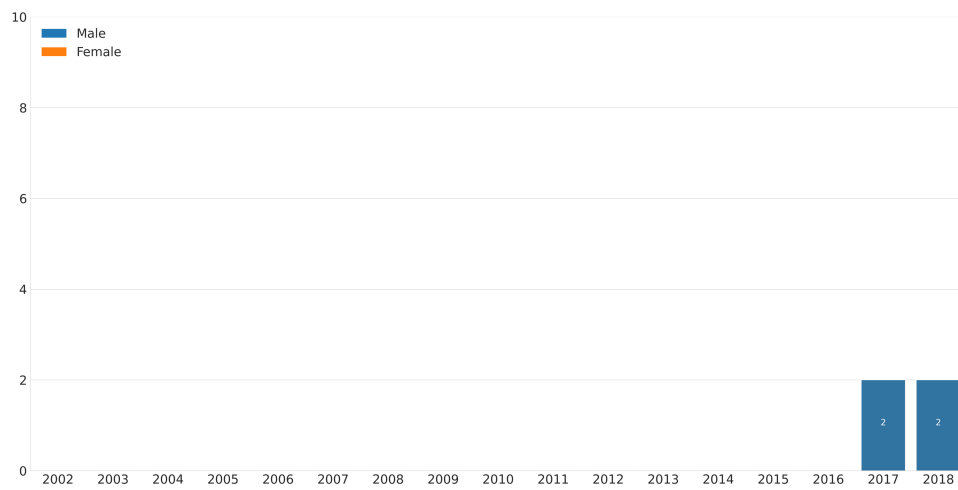
(b) Count of Program Chair roles by perceived gender by year



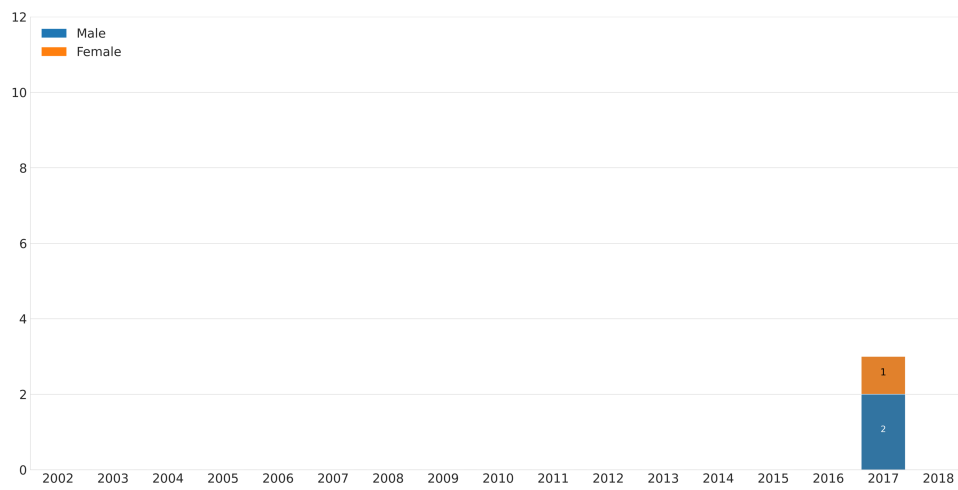
(c) Count of Plenary Speakers by by perceived gender by year

Figure 32: Turkey

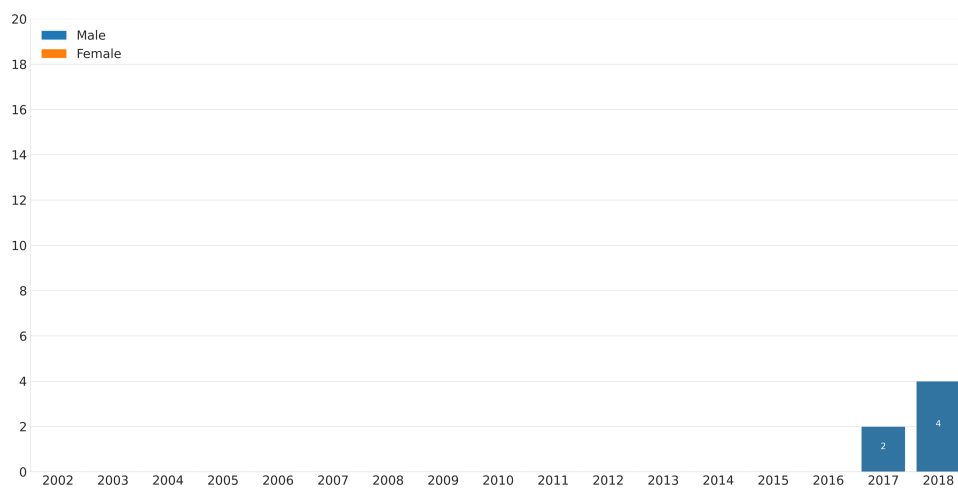
5.5.15 UK



(a) Count of General Chair roles by perceived gender by year



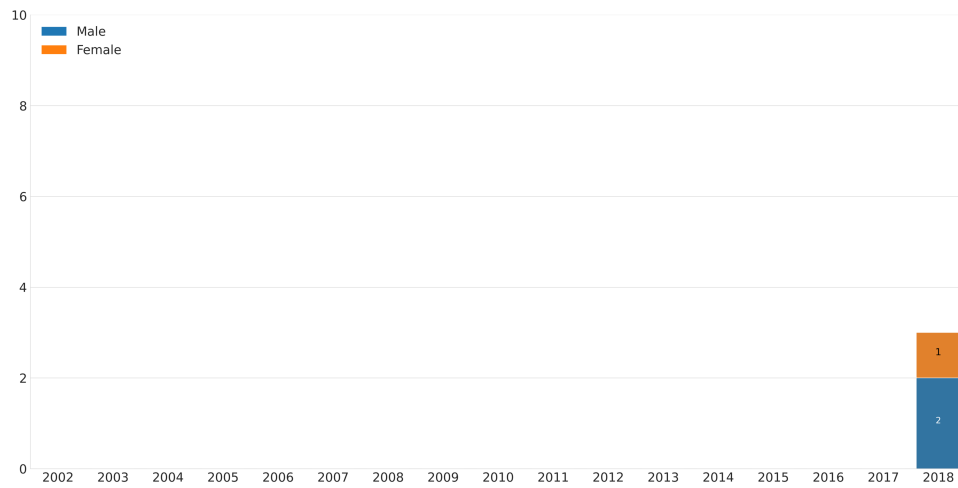
(b) Count of Program Chair roles by perceived gender by year



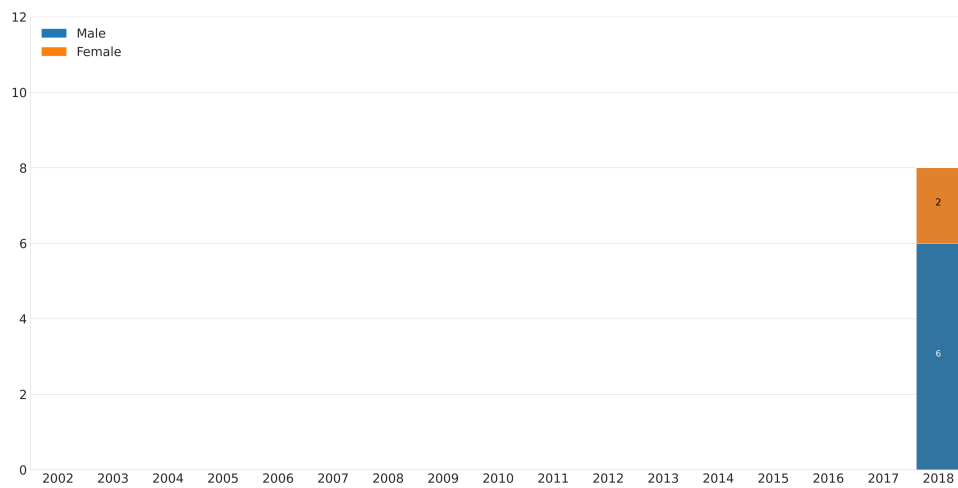
(c) Count of Plenary Speakers by by perceived gender by year

Figure 33: UK

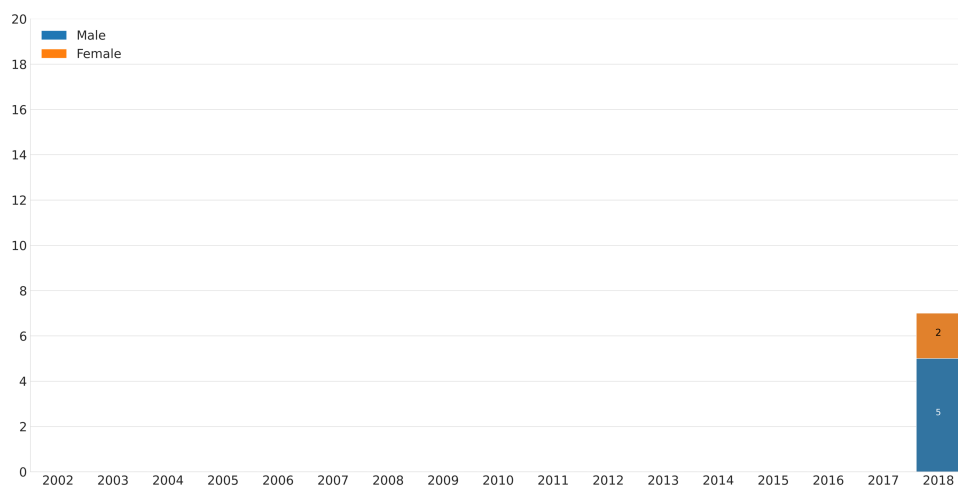
5.5.16 Australia



(a) Count of General Chair roles by perceived gender by year



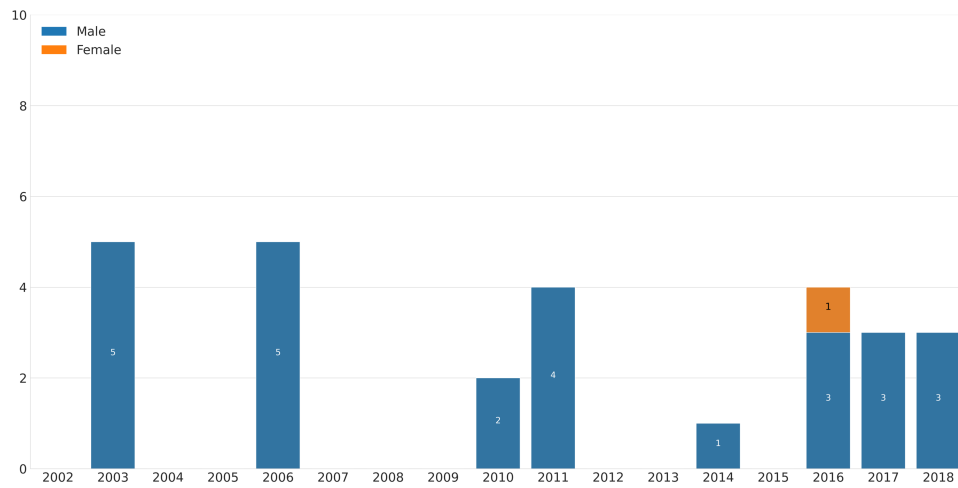
(b) Count of Program Chair roles by perceived gender by year



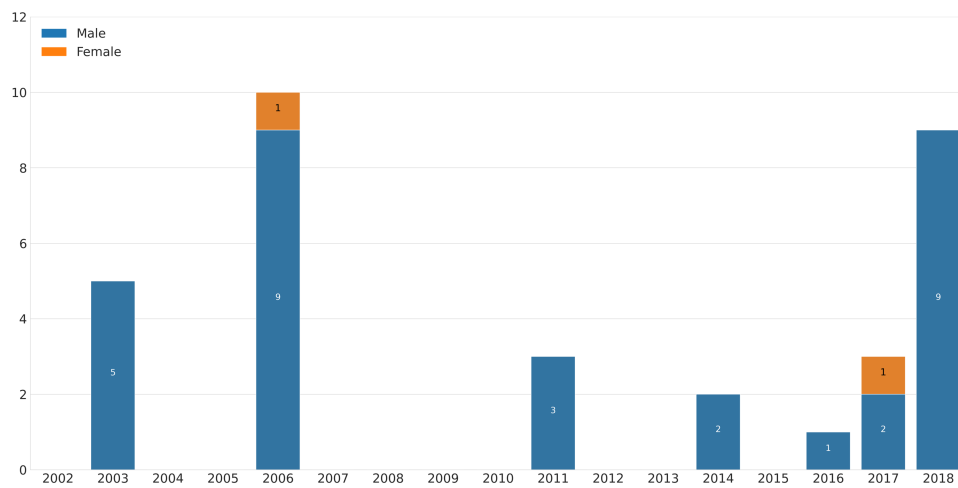
(c) Count of Plenary Speakers by perceived gender by year

Figure 34: Australia

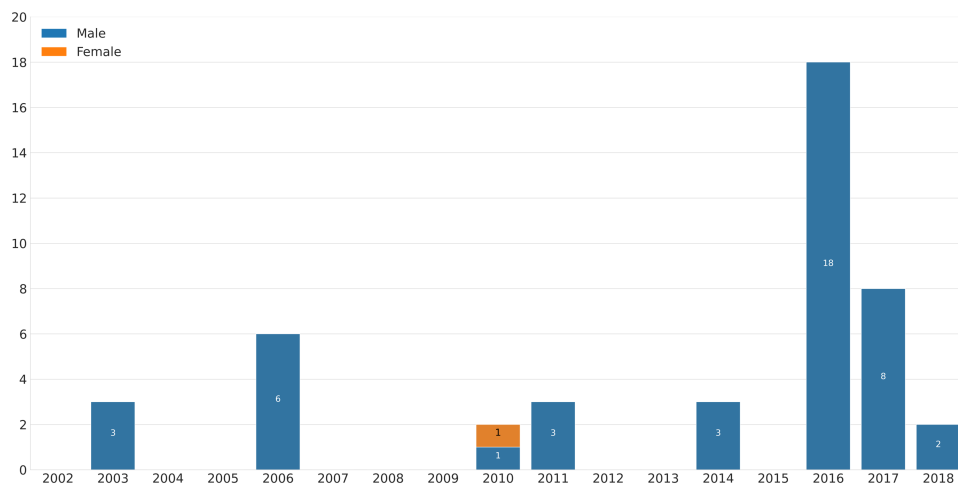
5.5.17 China



(a) Count of General Chair roles by perceived gender by year



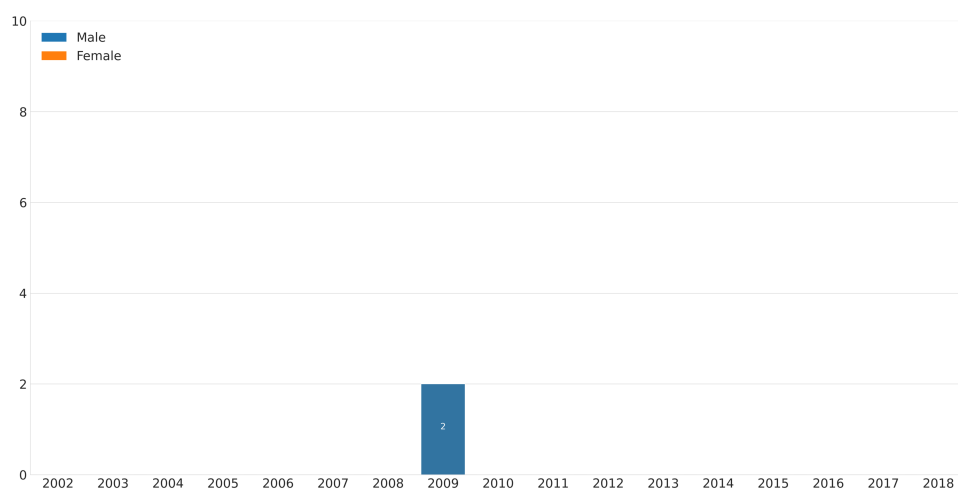
(b) Count of Program Chair roles by perceived gender by year



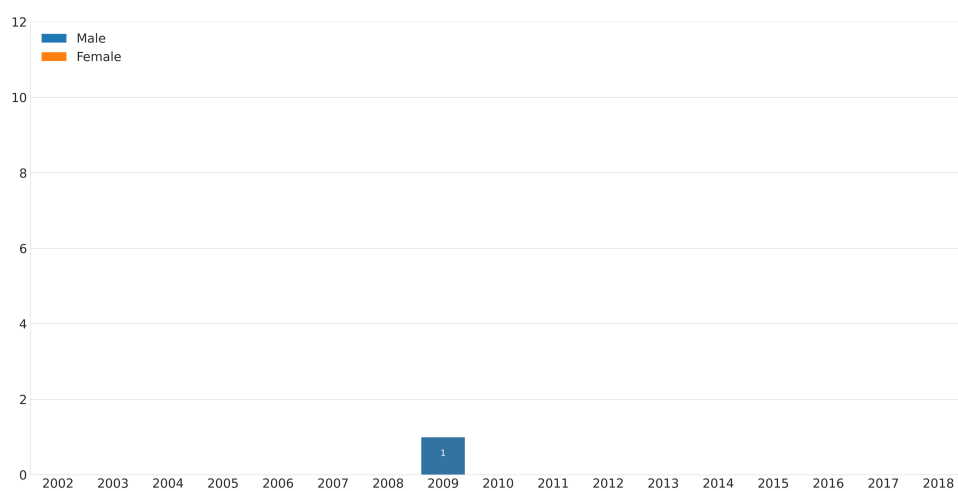
(c) Count of Plenary Speakers by perceived gender by year

Figure 35: China

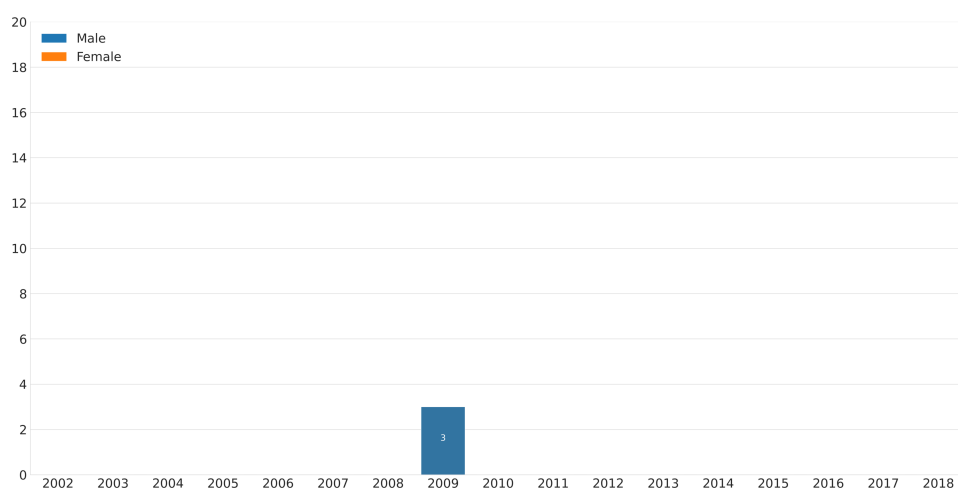
5.5.18 India



(a) Count of General Chair roles by perceived gender by year



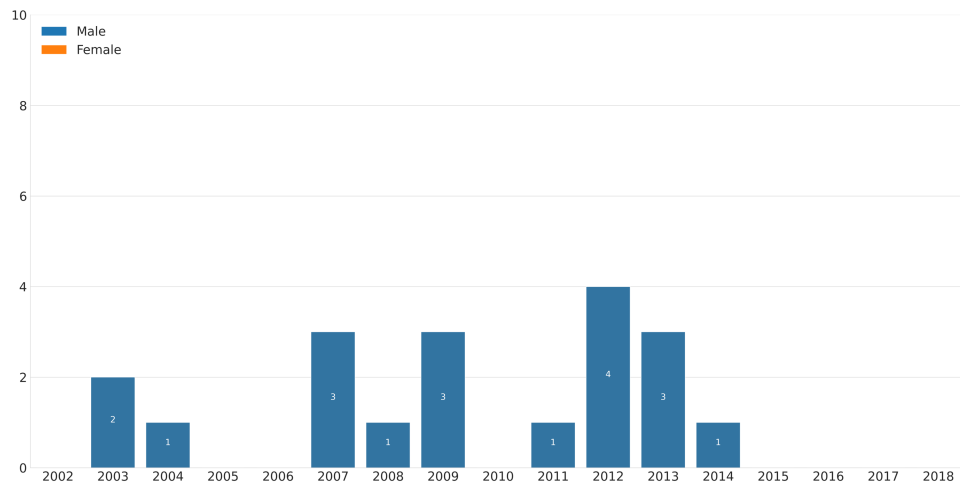
(b) Count of Program Chair roles by perceived gender by year



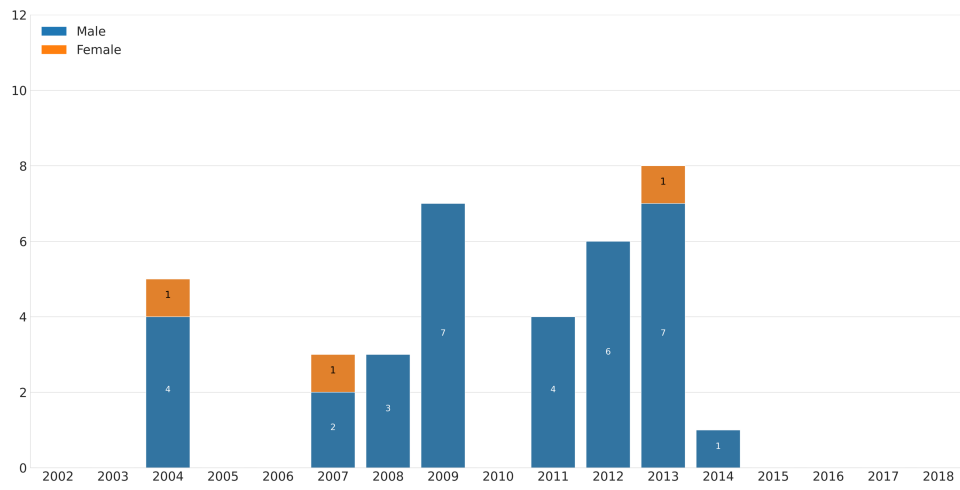
(c) Count of Plenary Speakers by perceived gender by year

Figure 36: India

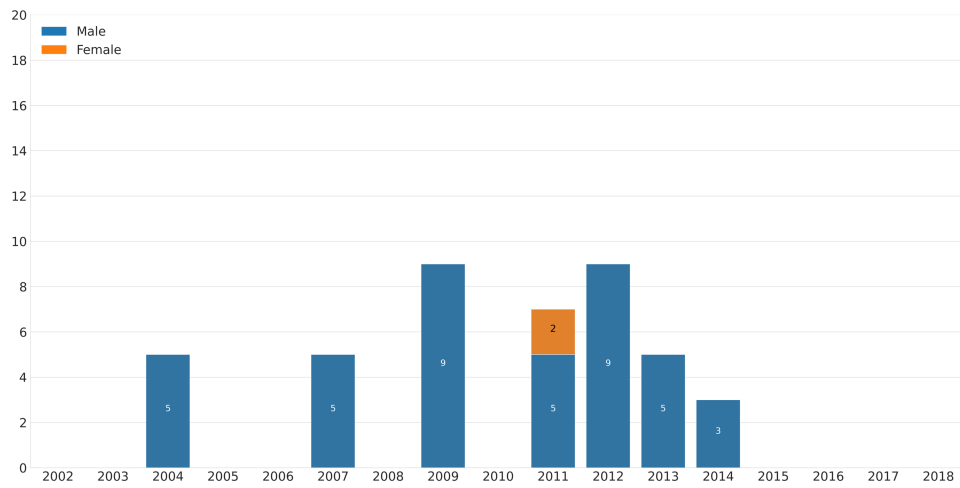
5.5.19 Japan



(a) Count of General Chair roles by perceived gender by year



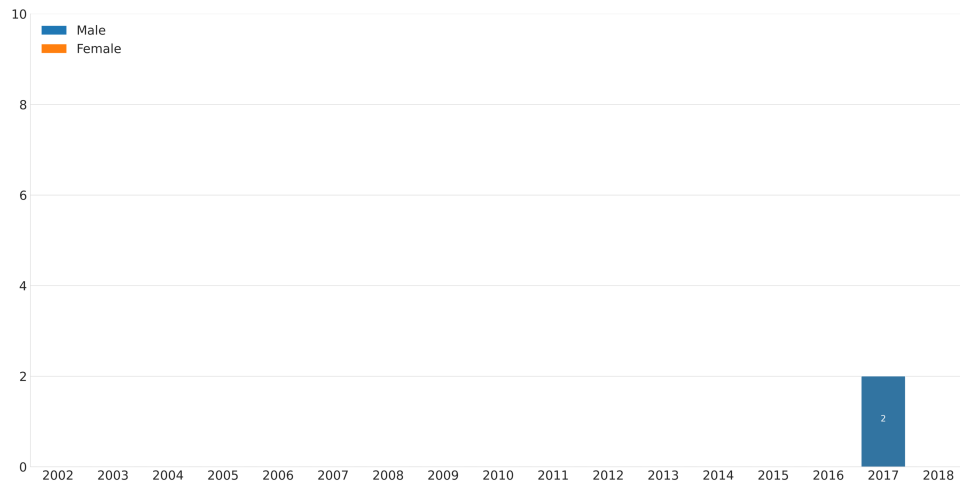
(b) Count of Program Chair roles by perceived gender by year



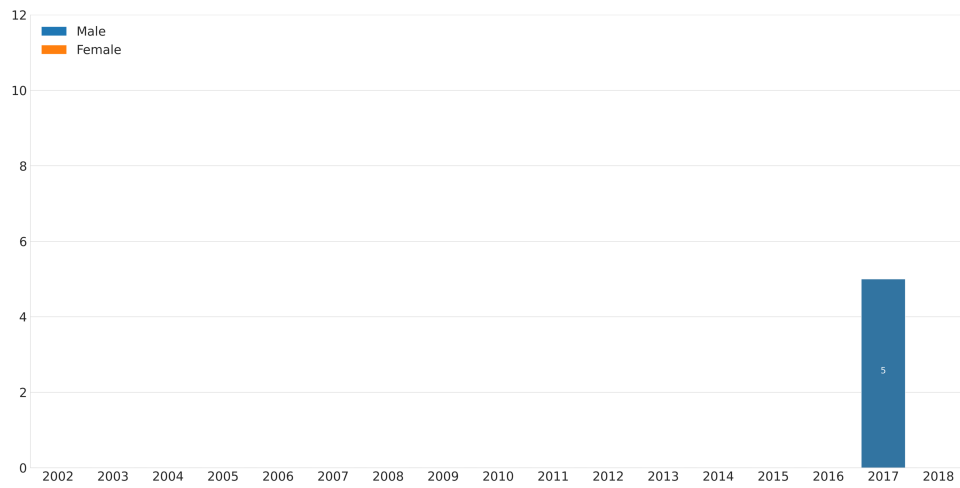
(c) Count of Plenary Speakers by perceived gender by year

Figure 37: Japan

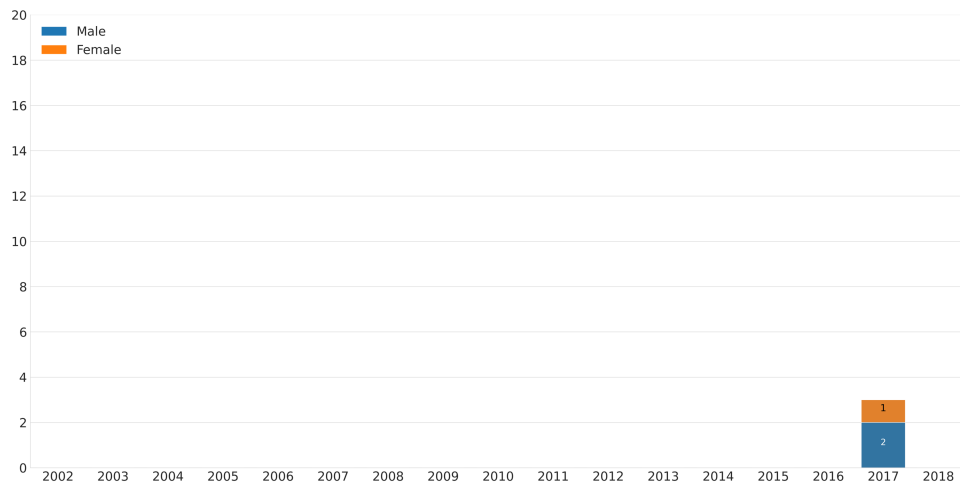
5.5.20 Singapore



(a) Count of General Chair roles by perceived gender by year



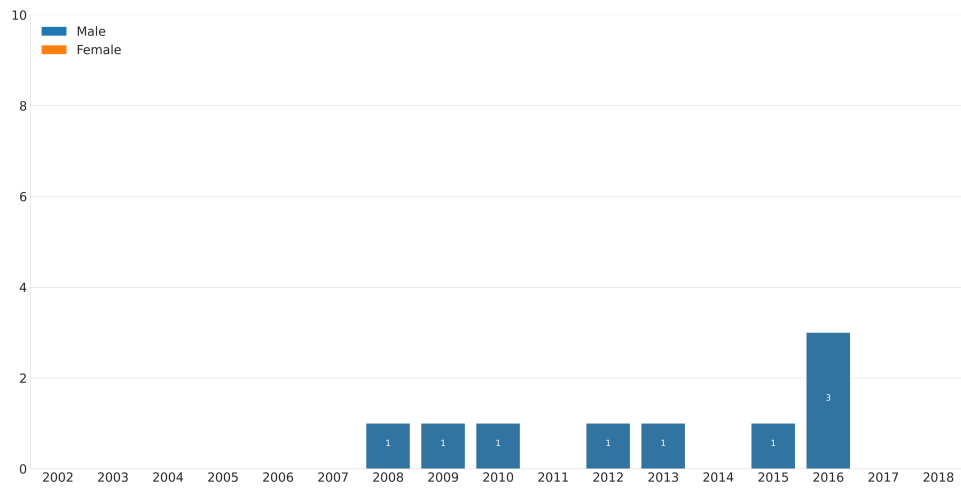
(b) Count of Program Chair roles by perceived gender by year



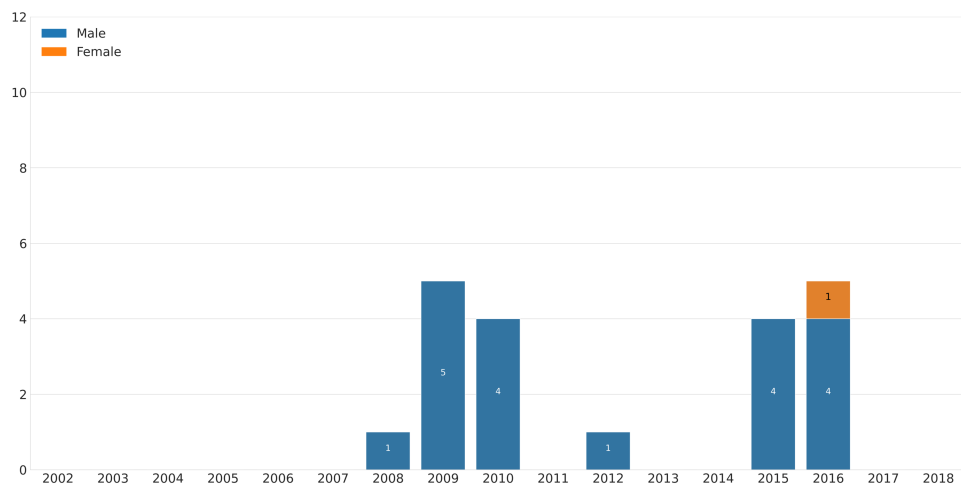
(c) Count of Plenary Speakers by perceived gender by year

Figure 38: Singapore

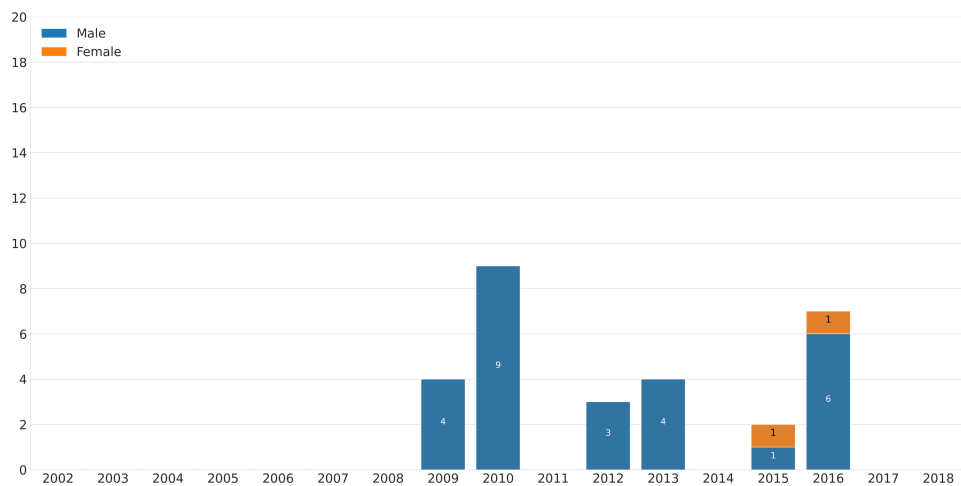
5.5.21 South Korea



(a) Count of General Chair roles by perceived gender by year



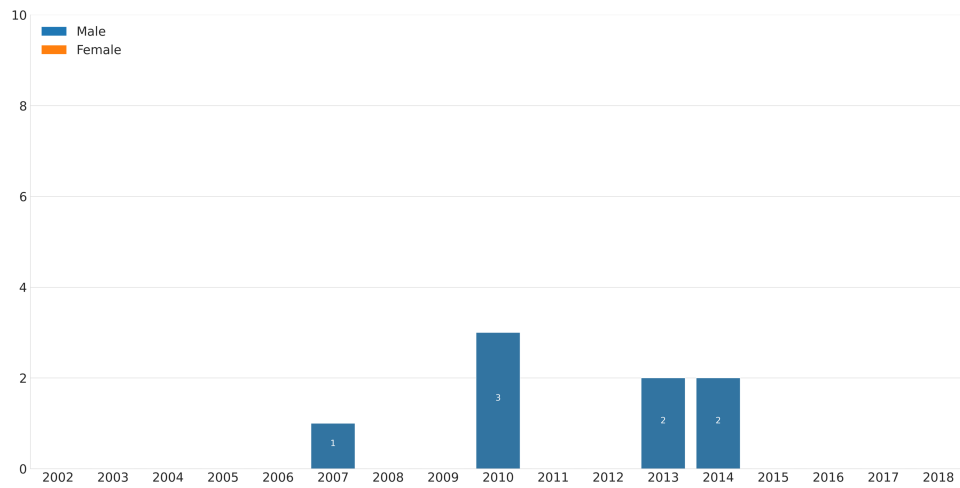
(b) Count of Program Chair roles by perceived gender by year



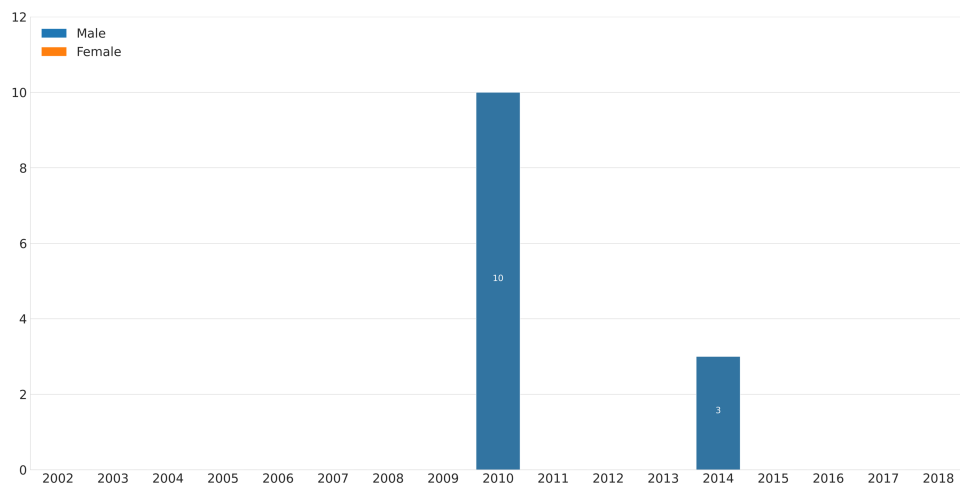
(c) Count of Plenary Speakers by perceived gender by year

Figure 39: South Korea

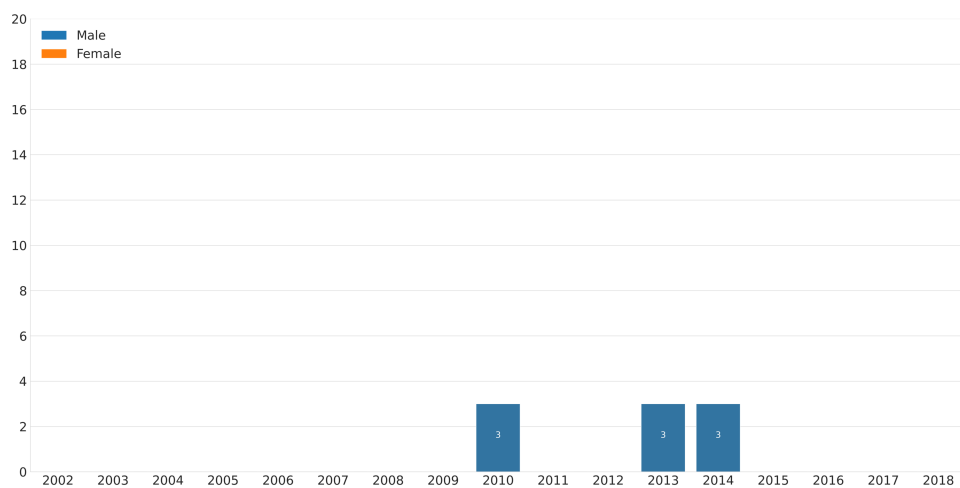
5.5.22 Taiwan



(a) Count of General Chair roles by perceived gender by year



(b) Count of Program Chair roles by perceived gender by year



(c) Count of Plenary Speakers by perceived gender by year

Figure 40: Taiwan