

Pilot study on applicable recommendations for restaurant professionals – Exploring Swedish wines paired with Swedish sturgeon caviar.

Henrik Scander

henrik.scander@oru.se

School of Hospitality, Culinary Arts & Meal Science, Örebro University,
Sweden

Sarah Forsberg

sarah.forsberg@hkr.se

Food and Meal Science, Kristianstad University, Sweden

Mihaela Mihnea

mihaela.mihnea@oru.se

School of Hospitality, Culinary Arts & Meal Science, Örebro University,
Sweden

Karin Wendin

karin.wendin@hkr.se

Food and Meal Science, Kristianstad University, Sweden

<https://doi.org/10.33001/18355/IJCT0829>

Received Date : 15/03/2025 | **Accepted Date:** 10/06/2025

Abstract

Recently, there has been a surge of interest in food and beverage pairing research, yet much of the available information stems from experiential knowledge rather than empirical studies.

This study bridges that gap by exploring professional food pairing practices using complex, high-value Swedish products, specifically focusing on white wine, sparkling wine, and sturgeon caviar.

Through involving semi-structured interviews with experts in wine and caviar combinations, our empirical findings highlight the intricate interplay between sensory attributes and contextual elements in shaping the dining experience.

While specific assurances of an optimal pairing may be elusive, general recommendations proved effective, underscoring the subjective nature of taste perception and emphasized the importance of social interaction in discovering ideal pairings for guests. For example, Swedish wines was recommended to explained and the caviar shown how to be eaten. These preliminary findings from a pilot study lay the groundwork for further investigation into food pairings.

Key Words:

Sommelier, beverage combination, Sturgeon caviar, sustainable products, Expert insights

Introduction

The field of food and beverage pairing research has witnessed significant growth in recent years, prompting a surge of interest in the topic (C. Spence, 2020). However, much of the pairing information available originates from experiential and tacit knowledge, disseminated through various culinary experts (Rune et al., 2021). Despite the recognition of professional food and beverage pairing as a vital skill, empirical studies within gastronomy remain limited. While early research focused on the measurement of food and beverage combinations, recent developments underscore the intricate nature of taste combinations, emphasizing the importance of sensory attributes and contextual elements (Harrington, 2006; Nygren et al., 2017).

As research progresses, there is a shift towards investigating food and beverage combinations in natural environments, exploring language as a tool for conveying combinations, and embracing interdisciplinary approaches (Chartier, 2012; Donadini et al., 2012; Donaldini et al., 2008; Herdenstam et al., 2018; Herdenstam et al., 2009; Nygren et al., 2017). Moreover, advancements in sensory science have led to the development of novel methods applicable to food and beverage combinations (Aaslyng & Frost, 2010; Eschevins et al., 2019; Jung et al., 2017; Kim & Hong, 2015; Mielby & Frøst, 2010; Paulsen et al., 2012; Rohm et al., 2010; Charles Spence, 2020; Velasco, Beh, et al., 2018; Velasco, Tu, et al., 2018)

Recent research delves into the health implications of food and beverage combinations, societal patterns of consumption, and the sociological aspects of taste preferences (Scander et al., 2018a, 2018b; Scander et al., 2019; Scander et al., 2020). Additionally, review papers have shed light on the divide between cognitive ideals and experiential

realities in food and beverage pairing research, with systematic reviews offering insights into experimental design and findings (Rune et al., 2021; Spence, 2022)

The act of eating and drinking in combination may appear simple, yet it encompasses a complex interplay of factors. Sommeliers navigate a myriad of decisions regarding food and beverages pairing daily in their professional work, each choice influenced by a multitude of factors such as sensory attributes, experience, knowledge, social craft, and cultural norms (Scander & Jakobsson, 2022). While research has demonstrated the potential for optimizing taste experiences through product pairing, there remains a dearth of literature on the practical application of food pairing knowledge within the restaurant industry. In this study, we aim to provide insights into professional food pairing as a culinary practice, bridging sensory expertise with cultural taste.

Aim

Our aim is to explore applicable food pairing for restaurant professionals using complex, high-value Swedish products, focusing on white wine, sparkling wine, and sturgeon caviar.

Method

This qualitative research investigates Swedish white and sparkling wines paired with Swedish-cultivated sturgeon caviar. Semi-structured interviews were conducted with experts in the field of wine and caviar combinations, and thematic analysis was performed using approach of Graneheim and Lundman (2004). Participants were selected using the snowball effect, with an emphasis on their experience in professionally combining wine and caviar as sommeliers. The pilot study involved six interviews, with plans to expand the participant pool to include additional wine experts and chefs in subsequent publications.

Analysis

After transcription, a content analysis was conducted in line with Graneheim and Lundman (2004). The transcripts were read closely to foster familiarity with the content, creating a sense of closeness to the material. Meaningful units, particularly those related to the practices of sommeliers in competitions and dining halls, were identified for further condensation and coding. The codes were then compared to highlight similarities and differences, and subsequently sorted into subcategories and broader categories. At each step of the analysis, contextual comparisons were made to ensure the empirical foundation of the data. All

authors were involved in both the research design and data analysis process. The first two steps of the analysis were carried out by the first author, and these results were then discussed and agreed upon with the other authors. In the final step, all authors worked together to enhance the trustworthiness of the study (Graneheim & Lundman, 2004; Suh et al., 2009).

Ethics

Ethical considerations were prioritized throughout the research. All participants gave informed consent following the guidelines of the Swedish Research Council. They were informed that their participation was voluntary and that they could withdraw at any time. Formal written consent was obtained at the time of the interviews. Given the small size of the Swedish culinary field, conducting a study with participants who do not know each other would have been both scientifically and practically difficult. Therefore, all personal and restaurant names in the data are presented under pseudonyms.

Results

In these preliminary results, three themes emerge regarding guidelines for professionally recommending successful wine and caviar combinations: Traditions and origins, sensory taste, and interaction with the guest.

Traditions and origins

The informants emphasized the importance of taking advantage of origin and tradition in food and wine pairings to enhance guest satisfaction. As one informant explained, “It’s essential to create authenticity by matching food and wine from the same region. When we talk about Swedish caviar and pair it with a Swedish wine, we give the guest a more genuine taste experience.” This approach highlights the value of connecting food and wine through geographical and cultural origins to deepen the dining experience.

Furthermore, the importance of respecting and benefiting from traditional food and wine pairings that have developed over time was underscored. Another participant noted, “For a new origin like Swedish wine regions, there’s a real opportunity to create a story that markets itself, making it appealing both from a taste and storytelling perspective.” This comment points to the potential for expanding traditions and narratives in new culinary contexts, especially when introducing lesser-known wine regions like Sweden. Adapting the atmosphere and presentation to reflect

the origin of the food and wine was also highlighted. One informant shared, “Using regional ingredients and even adding cultural elements like decorations or music from that region can make the entire experience more immersive and memorable for the guest.”

Sensory taste

Regarding the sensory experience, several strategies were identified to maximize guest satisfaction when combining Swedish wines and caviar. One common insight was the need to adjust the flavor profiles and intensities of both elements to create harmony. “Swedish wines can have prominent acidity,” noted one participant, “so sometimes we have to tone it down to match the delicate flavors of caviar.” This process involves adjusting the wines' characteristics to maintain balance and reflect local traditions. The importance of texture in creating a satisfying mouthfeel was also discussed. As one informant mentioned, “It’s about matching the structure of the wine with the texture of the caviar. When done right, it creates a unified and enjoyable taste experience that really brings out the best of Swedish flavors.” This speaks to the role of texture in enhancing the pairing experience, ensuring that both elements complement each other.

Additionally, creating balance or contrast in flavors was seen as crucial for a dynamic taste experience. One participant highlighted, “Sometimes, it’s the contrast between the wine and the caviar that makes the pairing exciting for the guest.” By either complementing or contrasting the flavors, sommeliers can offer more engaging and memorable pairings. Another aspect discussed was the idea of breaking traditional taste patterns to provoke and engage guests. “Offering a surprising combination can challenge the palate in an interesting way, which often makes for a memorable meal,” noted one sommelier. This approach reflects an intention to push boundaries while honoring Swedish gastronomy.

Interaction with the guest

In this theme, the informants shared strategies for enhancing the guest experience through active interaction between the sommelier and the guest. A key point raised was the importance of attentiveness. As one sommelier stated, “Often, the guest won’t tell you exactly what they want, but if you can read between the lines, you can create a personalized experience that exceeds their expectations.” This kind of subtle observation helps

sommeliers tailor their service to each guest. The role of the sommelier as a guide and educator was also emphasized. One informant explained, “We’re not just serving wine; we’re educating the guest. By introducing them to wines from new regions, like Skåne, we help them explore flavors they wouldn’t have chosen on their own.” This reflects the duty of the sommelier to inform guests about emerging wine regions, particularly those from southern Sweden, and to expand their culinary horizons.

The sommeliers also discussed their role in creating entertaining and memorable experiences for guests. “Sometimes it’s about telling a great story—whether it’s about the origins of the wine or setting up a special tasting event that really draws in the guest’s attention,” said one informant. These strategies help ensure that the dining experience is not only satisfying but also engaging and enjoyable for the guest.

Finally, the idea of the sommelier acting as a bridge for guests to impress their companions was mentioned. “By giving them that little extra advice, you can help the guest make a choice that leaves an impression on their friends or colleagues,” one sommelier shared. This interaction helps to elevate the guest’s dining experience, adding an element of personal satisfaction and connection. By focusing on these interactions between sommelier and guest, the restaurant can create a unique and memorable experience for each guest, leading to increased satisfaction and loyalty.

Discussions

The study unveiled a load of empirical knowledge from the experts, shining a spotlight on the essential role of sensory cues and contextual elements in shaping the food pairing of Swedish wines and sturgeon caviar. This emerged into three themes regarding applicable guidelines for professionally recommending successful wine and caviar combinations: Traditions and origins, sensory taste, and interaction with guest.

The emphasis on leveraging origin and tradition in food and wine pairings to enhance guest satisfaction is notable and in line with traditional wine pairing recommendations (Harrington, 2006). Discussing how incorporating elements such as regional ingredients, cultural details, and storytelling about the origins of food and wine can contribute to creating an authentic and memorable dining experience would be intriguing to further investigate due to different guests’ interest or purpose of their visit.

To further explore the strategies highlighted for maximizing guest satisfaction through the sensory experience of wine and caviar

combinations offers rich discussion potential. This could include delving into the importance of adapting flavor profiles, considering textures, and creating balance or contrast in flavors to create dynamic taste experiences that celebrate local flavors and traditions.

While specific assurances of an optimal dining experience may remain elusive, the study found that general pairing recommendations wielded considerable efficacy. Through these in-depth interviews, the subjective nature of taste perception emerged as a recurring factor, underscoring the importance of experimentation and exploration in uncovering ideal pairings (Herdenstam et al., 2009; Scander et al., 2018b). Experts consistently emphasized the need to strike a balance and achieve balance between wine and caviar to enhance the overall sensory journey without overpowering either component. Despite the inherent challenges in guaranteeing an ideal pairing, the study underscored the effectiveness of general recommendations, highlighting the inherently subjective nature of taste perception and emphasizing the role of social interaction in crafting memorable dining experiences. For instance, experts recommended Swedish wines accompanied by practical guidance on savoring caviar, thus enriching the dining journey for guests (Scander & Jakobsson, 2022). This part where the experts could interact to also impress the guest is also a way of bridging the gap between guests and dining room workers, and could be understood as a form of cultural mediator of taste (Smith Maguire, 2018a, 2018b)

Looking ahead, this pilot study acknowledges the evolving landscape of culinary research, particularly in light of food pairing. Shifts in cultivability, resource efficiency, and natural selection might also necessitate a reevaluation of consumption patterns in relation to pairing dynamics. Moreover, the dining experience is intricately woven with a complex tapestry of sociological, cultural, psychological, and physiological influences (Herdenstam et al., 2018).

Conclusions

In conclusion, this study offers nuanced insights into the pairing of Swedish white and sparkling wines with Swedish sturgeon caviar, drawing upon the expertise of industry professionals. The findings underscore the importance of experimentation and overarching guidelines in navigating the multifaceted realm of food and wine pairings. While specific assurances of an optimal pairing may be elusive, general recommendations proved effective, underscoring the subjective nature of taste perception and emphasized the importance of social interaction in discovering ideal

pairings for guests. For example, Swedish wines was recommended to explained and the caviar shown how to be eaten. It's important to note that these results are preliminary as it is a pilot study, offering a foundational understanding for further investigation into food and wine pairings.

References

- Aaslyng, M. D., & Frost, M. B. (2010). The effect of the combination of salty, bitter and sour accompaniment on the flavor and juiciness of pork patties. *Journal of Sensory Studies*, 25(4), 536-548. <https://doi.org/10.1111/j.1745-459X.2010.00285.x>
- Chartier, F. (2012). *Taste buds and molecules: the art and science of food, wine, and flavor*. John Wiley & Sons.
- Donadini, G., Fumi, M. D., & Lambri, M. (2012). The hedonic response to chocolate and beverage pairing: A preliminary study. *Food Research International*, 48(2), 703-711. <https://doi.org/http://dx.doi.org/10.1016/j.foodres.2012.06.009>
- Donaldini, G., Spigno, G., Fumi, M. D., & Pastori, R. (2008). Evaluation of ideal everyday Italian food and beer pairings with regular consumers and food and beverage experts. *Journal of the Institute of Brewing*, 114(4), 329-342.
- Eschevins, A., Giboreau, A., Julien, P., & Dacremont, C. (2019). From expert knowledge and sensory science to a general model of food and beverage pairing with wine and beer. *International Journal of Gastronomy and Food Science*, 17, 100144. <https://doi.org/https://doi.org/10.1016/j.ijgfs.2019.100144>
- Graneheim, U. H., & Lundman, B. (2004). Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse Education Today*, 24(2), 105-112. <https://doi.org/10.1016/j.nedt.2003.10.001>
- Harrington, R. J. (2006). The Wine and Food Pairing Process. *Journal of Culinary Science & Technology*, 4(1), 101-112. https://doi.org/10.1300/J385v04n01_11
- Herdenstam, A., Nilsen, A., Öström, Å., & Harrington, R. (2018). Sommelier training – Dialogue seminars and repertory grid method in combination as a pedagogical tool. *International Journal of Gastronomy and Food Science*, 13, 78-89.
- Herdenstam, A. P. F., Hammarén, M., Ahlström, R., & Wiktorsson, P.-A. (2009). The Professional Language of Wine: Perception, Training and Dialogue. *Journal of Wine Research*, 20(1), 53-84. <https://doi.org/10.1080/09571260902978543>
- Jung, H. Y., Kwak, H. S., Kim, M. J., Kim, Y., Kim, K. O., & Kim, S. S. (2017). Comparison of a descriptive analysis and instrumental measurements (electronic nose and electronic tongue) for the sensory profiling of Korean fermented soybean paste (doenjang). *Journal of Sensory Studies*, 32(5), Article e12282. <https://doi.org/10.1111/joss.12282>
- Kim, M. J., & Hong, J. H. (2015). Do sensory constructs underlying a multidimensional sensory attribute moderate the effect of information on its perception? A case study of nuttiness in soymilk. *Food Quality and Preference*, 40, 87-96. <https://doi.org/10.1016/j.foodqual.2014.09.006>

- Mielby, L. H., & Frøst, M. B. (2010). Expectations and surprise in a molecular gastronomic meal. *Food Quality and Preference*, 21(2), 213-224.
<https://doi.org/http://dx.doi.org/10.1016/j.foodqual.2009.09.005>
- Nygren, I. T., Nilsen, A. N., & Öström, Å. (2017). Dynamic changes of taste experiences in wine and cheese combinations. *Journal of Wine Research*, 1-18.
- Paulsen, Ueland, Nilsen, Öström, & Hersleth. (2012). Sensory perception of salmon and culinary sauces – An interdisciplinary approach. *Food Quality and Preference*, 23(2), 99-109.
<https://doi.org/http://dx.doi.org/10.1016/j.foodqual.2011.09.004>
- Rohm, H., Durrschmid, K., Forker, A., & Jaros, D. (2010). TWO-DIMENSIONAL MAPPING OF SENSORY TEXTURE DESCRIPTORS. *Journal of Texture Studies*, 41(6), 789-803.
<https://doi.org/10.1111/j.1745-4603.2010.00255.x>
- Rune, C. J. B., Münchow, M., & Perez-Cueto, F. J. A. (2021). Systematic Review of Methods Used for Food Pairing with Coffee, Tea, Wine, and Beer. *Beverages*, 7(2), 40. <https://www.mdpi.com/2306-5710/7/2/40>
- Scander, H., & Jakobsson, B. M. (2022). Gastronomy competition and restaurant practice: Sommeliers' understanding of the game of social craft. *International Journal of Gastronomy and Food Science*, 29, 100567.
<https://doi.org/https://doi.org/10.1016/j.ijgfs.2022.100567>
- Scander, H., Monteagudo, C., Nilsen, B., Tellström, R., & Yngve, A. (2018a). Beverage consumption patterns and energy contribution from beverages per meal type: results from a national dietary survey in Sweden. *Public Health Nutrition*, 21(18), 3318-3327.
<https://doi.org/10.1017/S1368980018002537>
- Scander, H., Monteagudo, C., Nilsen, B., Tellström, R., & Yngve, A. (2018b). Food and beverage dinner combinations, patterns among Swedish adults. *International Journal of Gastronomy and Food Science*, 14, 20-26.
<https://doi.org/https://doi.org/10.1016/j.ijgfs.2018.08.003>
- Scander, H., Neuman, N., & Tellström, R. (2019). Sommeliers' Food and Beverage Combinations: Social Conventions and Professional Identity. *Journal of Gastronomy and Tourism*, 4(1), 29-39.
- Scander, H., Neuman, N., Tellström, R., & Yngve, A. (2020). Acquiring competence: Sommeliers on “good combinations” of food and beverages. *International Journal of Gastronomy and Food Science*, 20.
<https://doi.org/https://doi.org/10.1016/j.ijgfs.2020.100199>
- Smith Maguire, J. (2018a). Taste as Market Practice: The Example of “Natural” Wine. *Consumer Culture Theory*, 71-92.
<https://doi.org/doi:10.1108/S0885-211120180000019005>
- Smith Maguire, J. (2018b). The taste for the particular: A logic of discernment in an age of omnivorosity. *Journal of Consumer Culture*, 18(1), 3-20.
<https://doi.org/10.1177/1469540516634416>

- Spence, C. (2020). Food and beverage flavour pairing: A critical review of the literature. *Food Research International*, 133, Article 109124. <https://doi.org/10.1016/j.foodres.2020.109124>
- Spence, C. (2020). Multisensory Flavour Perception: Blending, Mixing, Fusion, and Pairing within and between the Senses. *Foods*, 9(4), 407.
- Spence, C. (2022). Gastrophysics: Getting creative with pairing flavours. *International Journal of Gastronomy and Food Science*, 27, Article 100433. <https://doi.org/10.1016/j.ijgfs.2021.100433>
- Suh, E. E., Kagan, S., & Strumpf, N. (2009). Cultural competence in qualitative interview methods with Asian immigrants. *Journal of Transcultural Nursing*, 20(2), 194-201.
- Velasco, C., Beh, E. J., Le, T., & Marmolejo-Ramos, F. (2018). The shapes associated with the concept of 'sweet and sour' foods. *Food Quality and Preference*, 68, 250-257. <https://doi.org/10.1016/j.foodqual.2018.03.012>
- Velasco, C., Tu, Y. W., & Obrist, M. (2018, Oct 16). Towards Multisensory Storytelling with Taste and Flavor. [3rd workshop on multisensory approaches to human-food interaction (mhfi)]. 3rd Workshop on Multisensory Approaches to Human-Food Interaction, Boulder, CO.