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# Pigeon racing in South Africa: Exploring the socio-economic nature and extent of this 'unknown sport'

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**Abstract:** This research addresses the paucity of academic exploration into pigeon racing, a globally recognized sport with limited scholarly attention. While prior studies focused on ornithology and medicine, this paper pioneers a comprehensive examination from a geographical perspective. Employing a quantitative methodology, the study surveyed 712 members of the South African National Pigeon Organization (SANPO), providing a nuanced understanding of demographics, organizational structures, subjective values, and economic impacts within pigeon racing. The study's findings reveal the dominance of males in the sport, its multi-generational nature, and widespread participation across diverse income groups. SANPO, with 3,540 members, emerges as a crucial entity in the sport's landscape. The paper categorizes fanciers into small, medium, and large groups based on bird ownership, presenting insights into their socio-demographic context and motivations. Pigeon-related activities are explored, emphasizing the sport's familial and youth development aspects. The economic analysis highlights the industry's substantial job creation and estimates its total economic worth between R528,968,608 and R1,620,390,112. By shedding light on this understudied sport, the research aims to stimulate further academic exploration and provide a foundation for informed discussions on the cultural, economic, and social aspects of pigeon racing.

**Keywords:** economic impact, fanciers, socio-cultural impact, pigeon sport

## Introduction

In disciplines such as sociology, public management, history, media studies, and cultural studies, there are well-established and notable trends in sports research. The first time that sport was mentioned in a geographical publication was in 1879 (Bale

and Dejonghe, 2008). However, despite the inherent geographical characteristics of sports, encompassing considerations of time, space, communities, mobilities, and identities, and shared interests with researchers exploring phenomena such as geopolitics, socialization, structural and ideological forces, there is a limited body of work addressing sports geography (Wise and Kohe, 2020). Generally, geographical concepts of space, place, and environment are scrutinized and applied in the study of sports (Higham and Hinch, 2006 and 2011). Sports geographers focus on the societal effects of sports and how they imbue space and location with significance. Exploring sport and recreational practices in diverse contexts reflects the ongoing evolution of space and attitudes toward sports (Wise and Kohe, 2020). While research focuses may vary, geographers interested in sports also delve into spatial awareness, contested histories, identities, debates regarding scale, and existing power dynamics within sports governance, as well as the intricacies of place (Wise and Harris, 2010; Collins and Kay, 2014; Andrews, 2017; Koch, 2017).

The literature exploring the intersection of animals and sports is expansive and diverse, covering a wide range of topics such as ethical concerns, animal welfare, regulation and accountability, technological advancements, and public perceptions, among others (Kaushik, 1999; Kalof, 2014; Gibson, 2020; Campbell, 2023). Pigeon sport, also known as pigeon racing, is a unique and historic sport type that involves training homing pigeons to compete in races. As a sport it involves the release of trained pigeons that then fly back to their home loft. However, environmental factors such as wind speed, temperature, humidity, and air pollution can affect the birds' flight, speed, and navigation abilities, ultimately impacting the outcome of the race. Pigeons' navigation abilities are underpinned by two fundamental processes: orientation and homing. Orientation refers to their ability to determine their spatial position and direction relative to their goal, while homing pertains to their ability to return to their home loft from remote locations. Remarkably, pigeons exhibit a reliable sense of orientation even when released from unfamiliar locations, indicating the use of sophisticated navigational strategies (Walcott, 1996). While commonly viewed as nuisances or pests, pigeons have played significant roles in human history and remain subjects of both fascination and controversy in contemporary society. Their utility spans various roles, including being pets, carriers of post, messengers during wartime, subjects of scientific research, and participants in sports and leisure activities (Cressy, 1989; Beck, 2006, Kabir et al., 2020).

Pigeon racing evolved into a recreational activity for the working class in the 1870s, gaining global popularity post-World War II (Johnes, 2007; Whiston, 2017; Kabir et al., 2020). The reduction in working hours after the war in Europe, coupled with improved communication and travel networks, provided fertile ground for sports like pigeon racing to thrive. The impressive range of up to 1600 kilometres that

homing pigeons could traverse facilitated international competitions within Europe (Jerolmack, 2013). The English Carrier Pigeon, initially bred for news delivery, transformed into a short-distance racer due to the rise of the telegraph. Importation of robust racing pigeons from Belgium, facilitated by railways, expanded the scope of competitions. Pigeon lofts then became a prominent feature in residential areas across England and Europe (Jerolmack, 2013).

In contemporary times, pigeon racing boasts a substantial following with well-established organizational structures globally (Johnes and Nicholson, 2015). Despite rapid evolution and popularity in Western Europe and the United States in the early 20<sup>th</sup> century (Kabir et al., 2020), global enthusiasm for pigeon racing is dwindling. The introduction of modern technology has heightened the sport's complexity, making it costlier and less accessible to its working-class roots (Jerolmack, 2007). The declining interest among younger generations is attributed to rising expenses and the availability of alternative recreational pursuits. Even in Belgium, a prominent pigeon racing nation, the racer count has dropped significantly from approximately 200,000 to 40,000 over the past half-century (Jerolmack, 2013).

In South Africa, carrier pigeons gained prominence during the Anglo-Boer War. Post-war, a surplus of carrier pigeons led to the establishment of numerous lofts. Pigeon racing clubs such as Brooklyn, District Six, Rugby, Maitland, Woodstock, Wynberg, Ottery, Philippi, Paarl, and Stellenbosch have roots dating back over a century (Wallendorf personal communication, 2022), with multiracial participation in many clubs. Interest surged before World War II, with immigration bringing Belgian strains and a notable figure, Frans Putterie, to South Africa in 1932. Putterie's imported pigeons sparked a revolution in pigeon racing, leading to the development of the renowned "old Putteries" strain (Von Jules Gallez, 2010). Despite the changing political landscape due to apartheid, friendships endured, albeit with segregated clubs. Efforts to "race together" overcame these divisions (Wallendorf personal communication, 2022).

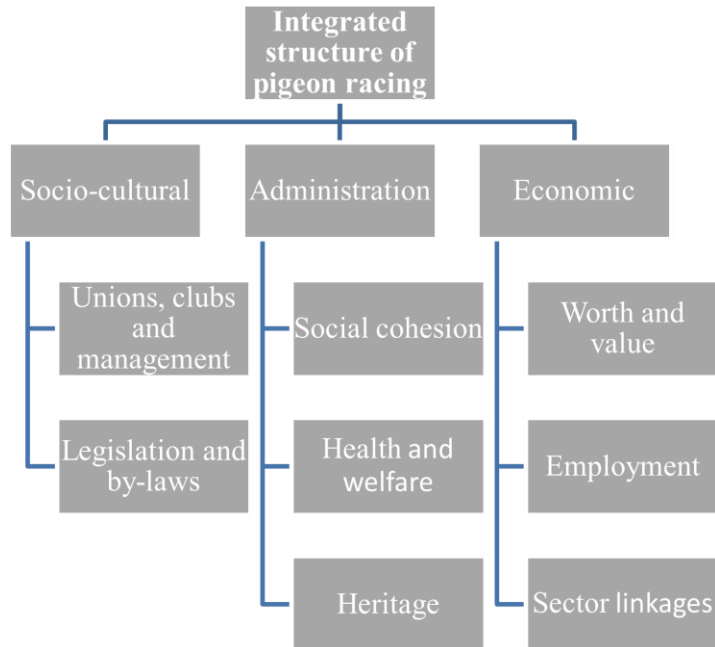
South Africa has become a favoured destination for pigeon fanciers and breeders, with its climate providing extended periods of favourable weather and the logistical advantage of overland travel as opposed to cross-oceanic transport (Wallendorff personal communication, 2022). As one of the top 10 pigeon countries globally, South Africa has positioned itself as a leader in innovation, developing new products such as software programs for online racing (De Coning, 2018 and 2022). The country boasts one of the world's best genetic pools of racing and breeding pigeons, sought after by both local and international breeders. International fanciers often send their birds to participate in South African races, with the Million Dollar Challenge, held annually at SUN City until its cancellation in 2020, remaining the top-earning and most prestigious race globally. These international competitions not only

elevate the sport's profile but also generate substantial earnings for the South African tourism industry, thereby contributing to the national economy. Renowned South African lofts, including those of President Cyril Ramaphosa and Mark Kitchenbrand, have garnered international acclaim and prestige, yielding lucrative incomes for the loft owners (Wallendorf personal communication, 2022). Pigeon racing clearly serves as a prime example of a sport with a rich cultural history and heritage, intertwined with social interactions and with an economic impact.

While pigeon racing enjoys a vague degree of awareness in the general public as a sport, there has been a notable dearth of worldwide academic research on the subject (De Coning, 2018 and 2022), particularly from the perspectives of sport scientists, sociologists, and geographers. For example, a search on Google Scholar reveals no published academic works specifically focused on contemporary pigeon sport. Despite the existence of numerous studies on racing pigeons originating from ornithological and medical fields (Walcott, 1996; Shivambu 2020a and b, 2022; Southern African Bird Atlas Project, 2022), a noticeable gap persists in academic inquiries, particularly in English, that delve into the intricacies of pigeon racing, both in a global context and specifically within South Africa. Key aspects that remain largely unexplored within academic literature such as understanding the demographics of participants, organizational structures, the subjective value it holds for those engaged in the activity, and the economic impact of pigeon racing in South Africa are therefore investigated in the paper.

### **Methodology**

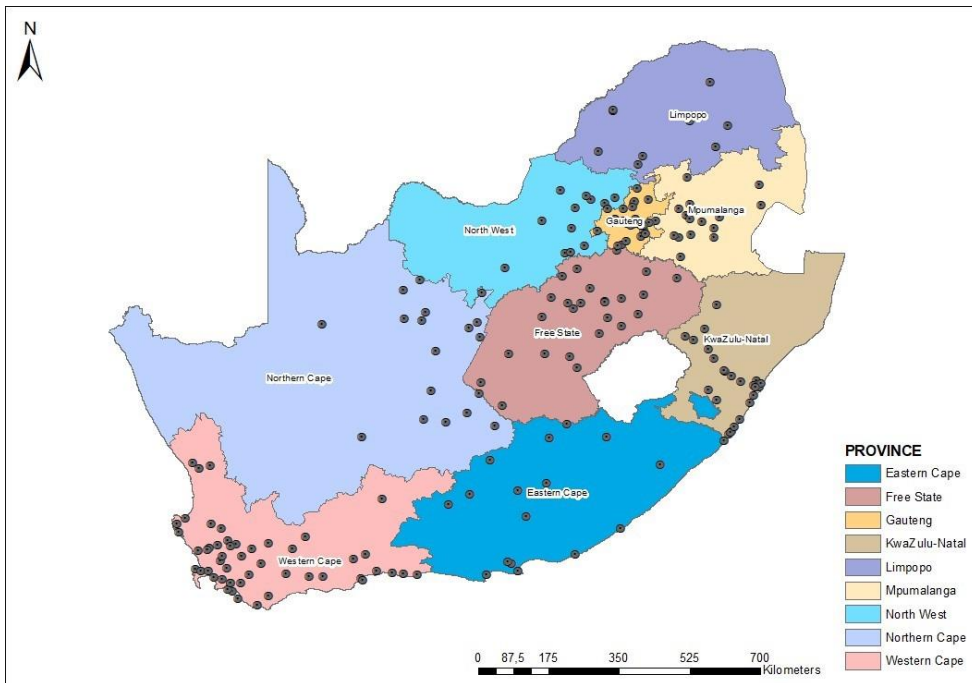
A quantitative research methodology was employed in this study, involving the collection of numerical data through an online questionnaire survey directed towards all registered members of South African National Pigeon Organization (SANPO). An analytical framework (Figure 1) served as a structural foundation for the study's questionnaire survey and subsequent data analysis. This integrated structure acts as a guiding framework, facilitating a comprehensive understanding and visualization of the main socio-cultural and economic themes within the sport, elucidating the driving factors, and highlighting their significance in society. Data was analyzed by means of SPSS. Statistical methods were then applied to analyze the data. The study created content cloud, alternatively known as a 'word cloud' or 'tag cloud', as an exploratory qualitative data analysis tool. Its purpose is to summarize document content by computing word frequencies and visually representing them.



**Figure 1.** Integrated structure of pigeon racing

For the survey, SANPO members, referred to as fanciers, an online questionnaire consisting of both open and closed-ended questions was designed using the Checkbox program. SANPO's executive provided information on the general structure, policies, and organization of the organization (Pretorius, 2022). SANPO's management disseminated the link to the online questionnaire to all members in September 2022, allowing a four-week period for completion. Ultimately, 712 members, constituting 20% of the total SANPO membership, successfully filled out the questionnaire. While the survey was initially conceived as a census, anticipating full participation from all members, it was later reclassified as a sample due to the partial involvement of the population. In statistical terms, the recommended sample size for a target population of 3540 (the number of SANPO members) is 347, as advised by statisticians using the Raosoft sample calculator. The actual response rate of 712 exceeded this standard.

The reliability of the study's findings hinges on the honesty and accuracy exhibited by respondents during the survey completion. Notably, the online survey method may have favoured digitally savvy fanciers, particularly those of medium and large sizes, typically professionals accustomed to responding to such inquiries and well-versed in information and communication technology. Figure 2 illustrates the geographic distribution of respondents' places of origin, showcasing representation from almost all clubs across the country.



**Figure 2.** Spatial distribution of geographical spread of places of origin of respondents

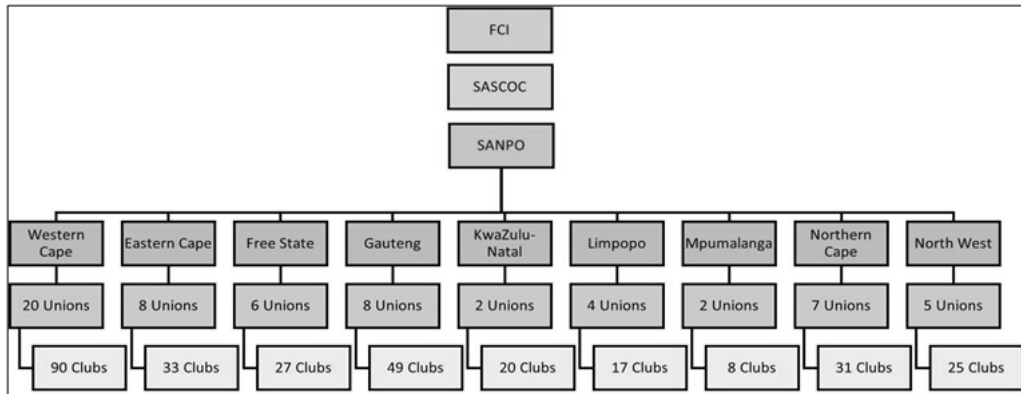
The study was approved by the Social, Behavioural and Education Research (SBER) Ethics Committee (Project number: 27438) of the authors' university and was endorsed by the South African National Pigeon Organization (SANPO).

## Results

Given the scarcity of existing literature on pigeon racing as a sport, the paper will rely on empirical evidence gathered through surveys. The focus will be on presenting and discussing the collected data, offering a comprehensive examination of the surveyed elements within the specific context of the study.

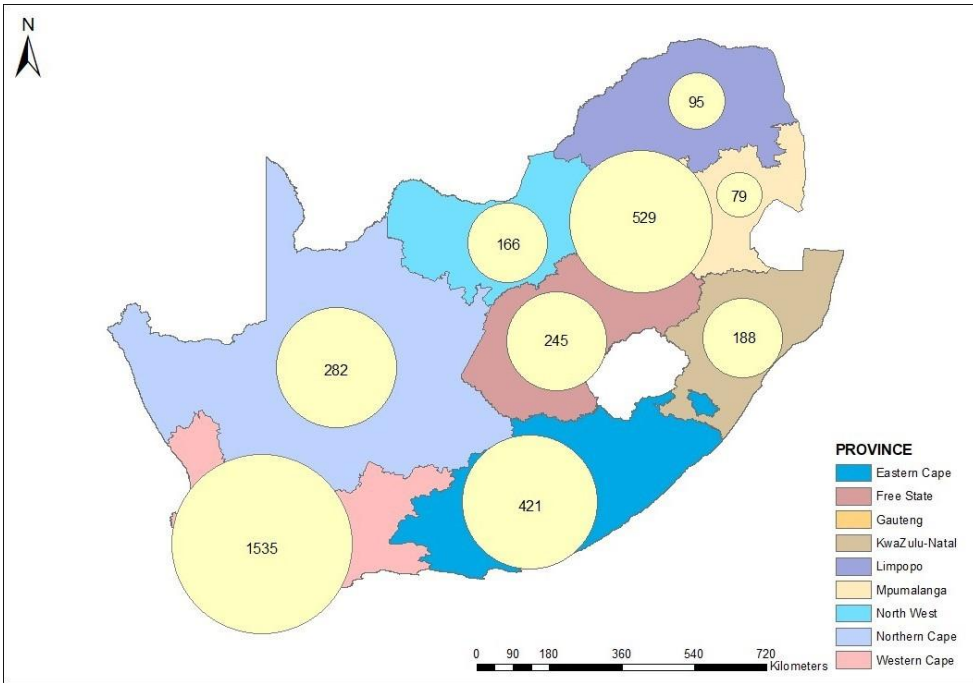
### *Organization and membership*

SANPO, a non-profit organization affiliated with the South African Sports Confederation and Olympic Committee (SASCOC), is dedicated to safeguarding, promoting, and fostering the sport of pigeon racing and the exhibition of pigeons. It encompasses all nine provinces in the country, including their respective unions (62 in total) and 300 clubs (Figure 3) (SANPO, 2020; Pretorius, 2022).

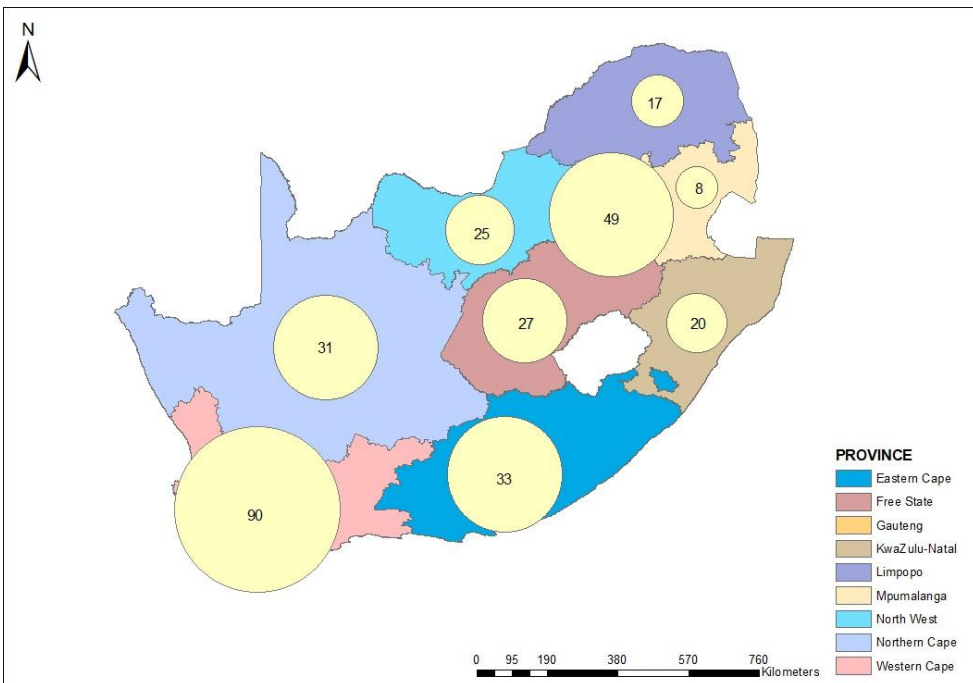


**Figure 3.** Governing structure of pigeon sport (Sources: SANPO, 2020; Pretorius, 2022)

The organization adopted a code of conduct in 2016, which, notably, was among the first of its kind to be presented to SASCOC (De Coning personal communication, 2022). In an inclusive approach, membership fees are kept minimal, amounting to R100 per person per year in 2022. Despite being characterized by relatively small membership numbers, with 3.540 members in 2022, SANPO stands as a vital entity within the sporting landscape. Figure 4 illustrates the proportional distribution of memberships across provinces, while figure 5 provides insights into the number of clubs per province. The spatial distribution of these clubs, showcased in figure 6, reveals comprehensive coverage across metropolitan areas, secondary cities, towns, small towns, and rural regions throughout the country. Respondents have been members of their respective clubs for between 1 and 59 years with an average of 11 years (median = 6 years).

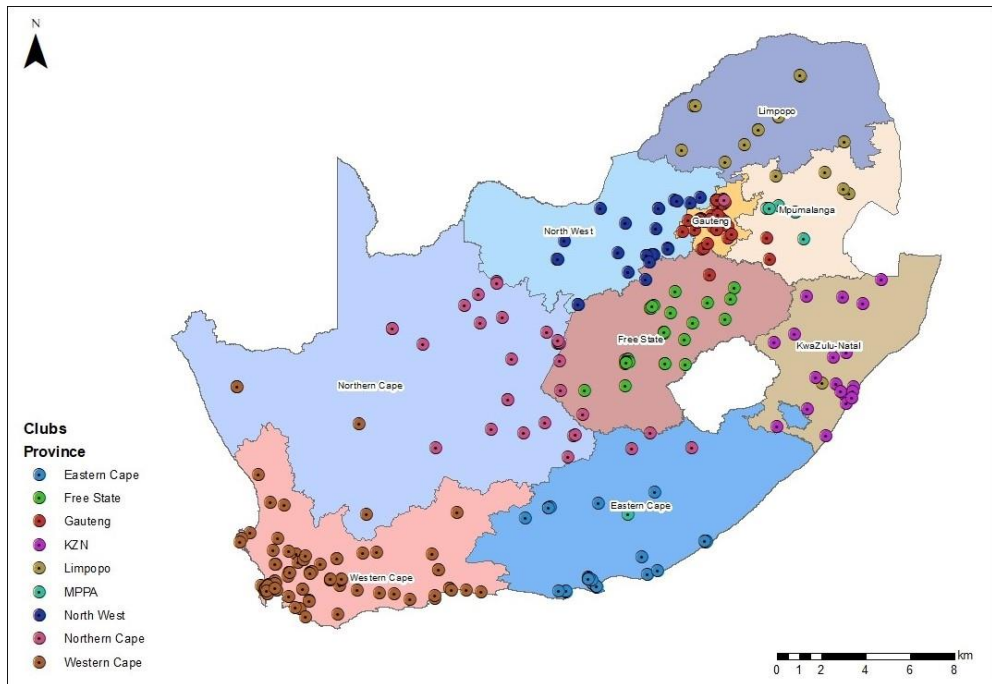


**Figure 4.** Proportional representation of SANPO members per province (2022)



**Figure 5.** Number of clubs per province (2020)





**Figure 6.** Spatial distribution of registered SANPO clubs (2020)

Unions consist of multiple clubs, which in turn are each constituted of a dozen or more members (fanciers). Such memberships ensure that fanciers derive the benefits of collective organising, such as transporting their birds to races in large trucks. According to De Coning (2018) existing unions and clubs are beginning to support and invest in fledgling clubs now, attempting to attract newcomers into the sport.

#### *Fancier category types*

In categorizing fanciers, De Coning's (2018) study employed a 10:50:40 ratio, distinguishing small fanciers with up to 59 birds (inclusive of racers and breeding birds), medium fanciers with 60 to 120 birds, and large fanciers with more than 120 birds. The respondents in the 2022 survey reported an average ownership of 129 pigeons, with a median of 110, ranging from a minimum of 7 to a maximum of 1.500 birds. To classify the sample of fanciers into three categories, the median value (110) was identified, and class breaks were established above and below the mean at intervals of  $\frac{1}{2}$  standard deviations, ensuring all data values fell within a class. For practical considerations, categories were rounded down to 60 and 155. Consequently, the three categories slightly deviate from De Coning's (2018) study, resulting in: (1) Small fanciers possessing fewer than 60 birds (2.5% of the surveyed sample); (2) medium fanciers with 60 to 155 birds (61.8% of the surveyed sample); and (3) large

fanciers owning more than 155 birds (25.8% of the surveyed sample). The median number of pigeons kept by the three fancier groups are: small fancier - 47; pigeons; medium fancier - 100 pigeons; and large fancier - 200 pigeons.

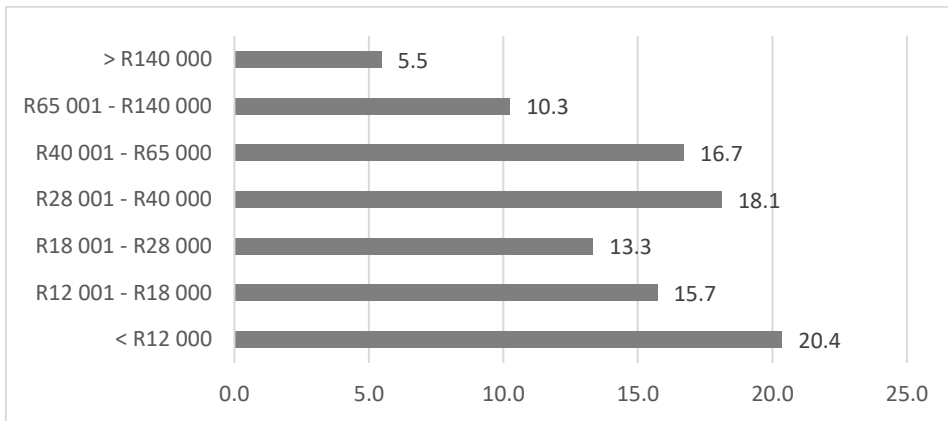
### *Socio-demographic context*

The dominance of males in animal sports can vary depending on the specific sport and cultural context. In some cases, animal sports may have historical or cultural associations with masculinity, leading to a greater male participation (Kalof, 2014). Pigeon sport in South Africa is largely male dominated (96%), mostly practiced by persons in their prime working age (56%) but also has great support among those older than 54 (42%), with some 2% below 24 years old. Respondents' age vary between 14 and 86 with an average age of 51 (median = 52). However, pigeon-racing has always been a notably multi-generational sport, a 'family affair' involving the whole family, with young children typically being allowed to hold baby birds (squabs) from a very young age (Wallendorf personal communication, 2022). Most children tend to drop out in their teens, however, returning again when they are older. To take part in pigeon-related activities is thus a life-long tradition. The average age to start is 21 years old (median is 15 years old). The number of years of involvement varies from 1 to 75 years with an average of 27 years (median = 27). Many fanciers have family members who participate in the sport with some having up to 60 members of an extended family involved, however, the average is 1.4 other members per family who are also members of SANPO.

Persons from all walks of life (Figure 7) and income-groups (Figure 8) partake in pigeon-related sport and activities: from professionals in high-income earning jobs to the low-skilled in low-income jobs and those unemployed. About half of the respondents are in the middle-to-higher income categories and half are below.



**Figure 7.** Employment categories (%)



**Figure 8.** Combined household income per month (%)

*Motivation for participation*

Fanciers engage in the sport due to their deep affection for pigeons and the sport itself. Respondents often characterize the sport as family-friendly and a pursuit that fosters familial bonds. Sports that are passed down through generations can be seen in pigeon racing. The family of Wallendorf has been involved in pigeon racing since 1903, meaning the family has been engaged in the sport for over 100 years, and Mr. Wallendorf’s son represents the sixth generation of Wallendorfs flying pigeons (Wallendorf, 2022). This offers a rich history and pride within the family and can be considered a legacy sport. Respondents were questioned about their motivations for participating in pigeon-related activities. The responses were transformed into a word cloud and then categorized into themes, with table 1 outlining selected responses in each theme. A significant portion of participants are introduced to the activity through family members and friends who are also involved. For some individuals, the significance lies in acknowledging how the sport plays a role in deterring involvement in gangs and substance abuse. This perspective aligns with insights from Pretorius (2022), who highlighted the sport’s utilization in youth development as a means to steer young individuals away from drugs and gang violence.

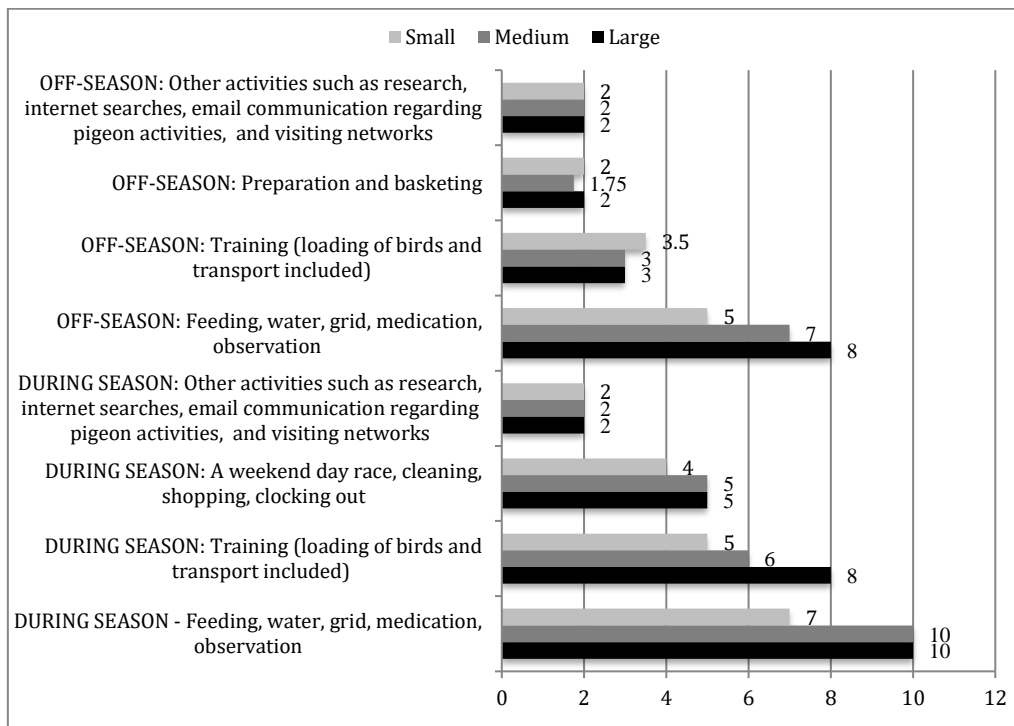
**Table 1.** Selected responses per theme to the question why fanciers participate in selected pigeon sport

Family tradition/family time	“A love of pigeons and the pigeon racing sport. It is something our whole family can participate in”.
	“It keeps one busy over the weekends. It’s a great sport to be part of all the family members can partake and it means you are spending quality time with you family at home”.
Peace and religion	“It’s difficult to find the words to describe how unique and amazing pigeons are. I think the true beauty of pigeons are that the more you learn and understand them, the clearer you can see God’s hand in creation”.

	It is a wonderful creation of God, to give him love and food and water and he flies back to his home".
Recreation/hobby	"It's my hobby which I am very passionate about. The friends and camaraderie you make in this game is second to none".
	"Love for pigeons and the sport".
Competitiveness/competition	"Love the competitive nature of a Racing pigeon and the sport of Racing pigeons".
	"Always been a competitive individual, the combination of having racing pigeons and racing them allowed me to enjoy my birds to the fullest".
Prevention of crime	"It has been something that kept me out of trouble as a child. Saved me from associating with friends that abused drugs. It's also a family sport and keeps my children off the roads".
Community	"It's my sport. Better quality of life. Helps with mental and psychological well-being. Camaraderie and social interaction. Great challenge to test one's ability to breed race and take care of racing pigeons".
	"We enjoy the sport and the pigeons. We are a tight knit club, and all are friends".

*Pigeon sporting activities*

In South Africa, there are five distinct types of pigeon-related sports activities: pigeon rollers, pigeon shows/pageants, fancy pigeons, long, middle, and short-distance racing, and the World Olympiad. The Federation Colombophile Internationale (FCI) is an olympiad world body and pigeon racing event coordinator. The Racing Pigeon Olympiad is an international event that brings together champion pigeons from all over the world and it is organized every two years. The 27th Olympics took place at the Goede Hoop Centre in Cape Town in 2001 (Troskie, 2001). A substantial majority of respondents (92.1%) engage annually in the comprehensive program encompassing all distances of pigeon sport activities. Specifically, 38.8% are involved in pigeon breeding, 22.5% participate in one-loft races, and exclusively 15.6% in short-distance races, 14.9% in middle-distance races, and 12.1% in long-distance racing. A smaller proportion engages in pigeon shows (7.3%) and roller tumbling (2%). Regarding the farthest distance a respondent would travel for a racing event, nearly half of the participants (48%) reported travelling up to 200 km, typically reflecting local engagements. Approximately one-third (29%) would venture to regional or provincial events, while 22% would participate at the national level, and only 1% at the international level. Notably, 80% of respondents expressed a willingness to travel up to 200 km for training sessions leading up to an event. On average, respondents dedicate a median of 120 days per year to training pigeons. Figure 9 depicts the median number of hours allocated per week during the season and off-season across four activities, segmented by the three fancier categories. Understandably, medium and larger fanciers invest slightly more time in specific activities, such as feeding and training during the season.



**Figure 9.** Median number of hours spent per week during season and during off-season on activities according to the three fancier categories

*Economic worth*

Pigeon racing sport not only captures the enthusiasm of fanciers but also contributes substantially to various domestic economies. The pigeon trade has burgeoned into a multi-billion-dollar international industry, ranking for example, among Belgium's top ten export commodities. Recent auctions have seen individual birds fetching remarkable sums, such as \$25.4 million, underlining the economic significance of the sport. The international market primarily draws from prominent players in pigeon racing, notably from countries in the east such as China, the Benelux region, and ex-Eastern bloc countries (De Coning, 2018; Kavesh, 2018).

A pigeon fancier typically spends 3 to 5 years establishing a loft, laying out money for the building and/or buying of the loft, generally followed by extensions and improvements made over time. The fancier needs to acquire good breeding stock/young birds and purchase a range of paraphernalia. According to Wallendorf (Personal communication, 2022) although in the past the sport was a fairly simple affair, over time it has become notably more sophisticated and thus expensive, with fanciers gradually becoming more competitive and professional – if you are ‘in it to win it’ you need to make significant investments of both time and money to make money.

In what is becoming an increasingly competitive environment, where there is a lot of money to be made, the entry of new fanciers, and especially young people interested in the sport has become very challenging. A supplier of products to the industry went as far as to call the sport 'a science' (Viljoen personal communication, 2022). Youths from less privileged environments who are attracted to the sport, from places like Soweto for example (Mtembu, 2022), are finding it difficult to get established, mostly due to the associated costs involved, not least because of membership fees. The consequence of this is that those from less advantaged backgrounds generally do not register with clubs or unions (Mtembu, 2022), remaining invisible and unmonitored, thereby presenting a range of risks for the sporting body.

From the survey responses the estimated economic value of the racing pigeon industry in the country was computed, primarily utilizing the criteria established in De Coning (2018). Survey participants were asked about their expenditure estimates for running expenses over the course of a year or a month (whichever was more convenient to provide). The following categories were considered: Acquisition of pigeons; club fees; communication about pigeon; electricity use; feed and grain; functions; insurance; labour (workers); loft manager salary; medicine and supplies; one loft racing; research expenses; rings and equipment; SANPO and other affiliated fees; training costs; transportation-related expenses; and veterinarian fees. Table 2 serves as a comprehensive summary of the entire sample, indicating the number of respondents incurring costs for a specific item or category. The percentage of responses, used as a weighting factor in calculating the average overall running cost total, is also presented. Additionally, the table provides the minimum and maximum cost values reported by respondents, along with the mean (average value), standard deviation, and median for each category.

**Table 2.** Summative table of running costs

Descriptive Statistics	N	%	Min	Max	Mean	Std. Deviation	Median
Feed and grain	677	95.1	15	250000	17191	19711	12000
Medicine and supplies	658	92.4	120	240000	8716	13109	6000
Rings and equipment	663	93.1	36	72000	5799	9647	2400
Transportation of pigeons	633	88.9	120	240000	15059	22973	7200
Veterinarian fee	238	33.4	120	180000	5581	13381	2400
Training	585	82.2	120	240000	15513	24896	7200
Club fees	660	92.7	20	180000	7008	15773	2400
SANPO and other affiliation fees	581	81.6	50	66000	2079	5672	500
Acquisition of pigeons	237	33.3	2	600000	18833	55503	5000

Research expenses	297	41.7	84	60000	2451	4512	1200
Communication about pigeons	299	42.0	84	60000	2444	4498	1200
Electricity use for pigeon lofts	319	44.8	50	60000	2432	5011	1200
Labour workers	338	47.5	120	720000	27732	53698	12000
Loft manager salary	50	7.0	600	600000	72556	111285	48000
One loft racing	165	23.2	24	300000	31345	54408	12000
Functions	310	43.5	48	48000	3002	5241	1200
Insurance	17	2.4	120	20000	5112	5366	3000

Tables 3 and 4 show the mean and median calculated running expenses for the three fancier group types. The replacement value of all birds and lofts is also incorporated to provide a comprehensive estimation of the economic value of pigeon racing. While conventionally presenting only the median might suffice, in this instance, presenting both mean and median is beneficial. It not only highlights the spending disparity but also acknowledges that the value might surpass the median estimate. The current total economic worth ranges from R528.968.608 (based on median spend and replacement values) to R1.620.390.112 (based on average spend and replacement values) (100 Rand equals \$5.28 at the time of writing). It's essential to note that this figure excludes the facilities and land owned by clubs, as well as indirect tourism economic impacts resulting from fanciers travelling to racing events, whether local, national, or international.

**Table 3.** Estimation of economic worth South African Rand of pigeon industry based on the mean

Based.on.mean (average)	Small fanciers	Medium fanciers	Large fanciers	Total
All.running.expenses	21.500.279	179.403.053	167.796.465	368.699.797
Replace.value.of.all.birds	17.657.932	329.809.886	608.254.240	955.722.058
Replace.value.of.loft	13.386.611	127.448.089	15.5133.554	295.968.255
TOTAL	52.544.822	636.661.030	931.184.259	1.620.390.112

**Table 4.** Estimation of economic worth in South African Rand of pigeon industry based on the median

Based on median	Small fanciers	Medium fanciers	Large fanciers	Total
All.running.expenses	11.150.101	96.879.281	84.454.226	192.483.608
Replace.value.of.all.birds	8.780.000	109.400.000	91.300.000	209.480.000
Replace.value.of.loft	6.585.000	65.640.000	54.780.000	127.005.000
TOTAL	26.515.101	271.919.281	230.534.226	528.968.608

Despite the relatively small number of participants in the sport, it is noteworthy that the racing pigeon industry generates a substantial number of jobs. Fanciers typically employ 1.3 full-time and 1.2 part-time workers, with a median of 1 for both types of employment. In other words, within the industry, approximately 8.850 jobs are created, comprising around 4.602 full-time positions and an additional 4.248 part-time jobs. It's important to highlight that these figures exclude indirect employment creation, such as individuals working in the bird food industry, manufacturing of lofts, transportation of pigeons, as well as those employed in pet shops and the medicinal and medical fields.

#### *Awareness of legislative regulation of the sport*

The question was posed to the respondents whether they know that as a SANPO member it is illegal to own and sell racing pigeons in the country unless SANPO has a permit to do so - 65% percent did not know that it is the case. Furthermore, almost two thirds (60%) of the respondents are of the opinion that there should not be any form of national regulation for the keeping of pigeons.

To practice their sport, SANPO members are also subjected to certain restrictive local municipal level regulations. Around 50 municipalities for which by-laws pertaining to the keeping of birds were identified. Almost a third (32%) of the fanciers said that they do not know of any by-laws, some 46% were adamant that there are no such by-laws applicable where they live and only 22% indicated that they are aware of such by-laws. Eastern Cape respondents are most aware of the existence of by-laws followed by Western Cape and Gauteng respondents but these percentages are very low (all below 30%). Details related to building structure and size of the lofts are most prominent by-laws, followed by the specific location of the lofts on an erf, permission from neighbours, followed by the restrictions imposed on the number of birds. In some local authorities a maximum of only ten pigeons are permitted which is a major concern for SANPO members.

#### **Discussion**

Pigeon racing in South Africa boasts a rich tradition of efficient management, with present-day representation in all nine provinces. The South African Pigeon Union (SAPU) was established in 1939 as the first pigeon racing union. It was recognized as one of the first national organizations to which unions belonged and therefore also the beginning of representation of pigeons as a sport at an organized level (Pretorius, 2022). Today SANPO (constituted in 2000 after the merger of SAPU and the Federated Board), ensures the integrity and ethical management of the sport. With regulations, participation and rules constantly changing, the managing body



needs to revise their internal constitution regularly. The sport adheres to a code of conduct and holds affiliations with the national body SASCOC (South African Sports Confederation and Olympic Committee) and the Federation Colombophile Internationale. However, there is limited awareness of the sport beyond those who are part of the 'pigeon racing family'. The survey among SANPO members thus provides valuable insights into this unknown sport in the country.

With small numbers of participation, the sport has a dedicated following across all nine provinces, and is not limited to urban spaces, but rural spaces as well. Spatially the Western Cape, Gauteng, and the Eastern Cape emerge as the three most influential provinces, collectively constituting 70% of the country's membership. While predominantly male-dominated, pigeon sport is also characterized as a family-oriented activity, with family members participating in various aspects, although not necessarily holding SANPO membership. A relative age effect will not operate in sport activities where physicality is not important (Delorme and Raspaud, 2009). The average age of fanciers was 51 years old. The sport fosters a lasting affection for the birds and has transcended its historical association with the working class, as evidenced by the active involvement of the country's president as a dedicated fancier. A considerable proportion of members now includes professionals in high-income positions. Sport has the potential to promote inclusion and empower marginalized groups within society. By providing equal opportunities for participation, irrespective of gender, age, ability, or socio-economic background, SANPO challenges stereotypes and promotes equality.

Social networks impact health through various mechanisms, such as providing social support or exerting social influence through peers (Steiger et al., 2021). Non-physical sports such as pigeon racing foster social connections and community engagement, which are essential for promoting healthy lifestyles. Non-physical sports provide socialization platforms through forums and local clubs, connecting individuals with shared interests and facilitating social integration and social cohesion. Pigeon sport events range from local to regional to international gatherings, including events and can target social cohesion at the interpersonal level, especially as it concerns dimensions of social networks and identification (Moustakas, 2024). Unlike many other sports, fanciers' enduring engagement over the years reflects a commitment to preserving the cultural heritage embedded in the sport and its activities.

Pigeon racing demands both time and financial investment, with enthusiasts traveling significant distances for training and competitions. Evolving from humble origins, the sport has transformed into a scientific pursuit. Despite its relatively small size, pigeon racing contributes significantly to the economy (a calculated current total economic worth ranges from R528.968.608 to R1.620.390.112), generating economic

value and supporting direct and indirect employment, such as in the bird food industry, loft manufacturing, pigeon transportation, pet shops, and the medicinal and medical sectors.

Legislative challenges (locally through by-laws and nationally through permit applications) are however major challenges for fanciers to overcome in order for their sport to continue. At local level, many municipalities restrict the number of birds allowed in lofts to a maximum of ten. Such restriction is impractical, as most bird enthusiasts typically have on average 129 birds. At national level, SANPO faces major challenges to sustain their sport. The invasive tendencies of *Columba livia* (Rock Pigeon/Dove – the birds used for pigeon racing) are well known (Kumschick et al., 2016). It has the largest avian invaded range across the world (Stern and Dickenson, 2010) and its invasions have largely resulted from the domesticated bird trade where birds became invasive through release or escape pathways (Burivalova et al., 2017). The purpose of the National Environmental Management: Biodiversity Act (Act No. 10 of 2004): Alien and Invasive Species (AIS) Regulations is to prevent the unauthorised and uncontrolled introduction and spread of invasive species to ecosystems and habitats where they do not naturally occur, to prevent or minimise harm to the environment and to biological diversity in particular, and where possible and appropriate, eradicate invasive species that may cause such harm. The *Columba livia* was declared an alien species and listed as Category 1a in 2014, effectively banning all forms of pigeon racing, fancier shows and selling of pigeons in the country. After much lobbying from industry and SANPO, the decision was reversed and *Columba livia* was listed as a category 2 for all restricted activities relating to racing and showing of pigeons, however, sport activities can continue on condition that SANPO applies for a permit. The legislation dictates that any person undertaking pigeon racing or pigeon showing registered with the relevant industry association (in this case SANPO) is exempted from requiring a permit for all restricted activities, provided such association is in possession of a valid permit in terms of the Act or the Alien and Invasive Species Regulation and complies with all permit conditions. Restrictions on the permit may include breeding, cultivation, or transporting across provincial boundaries. As of the current writing in 2024, the permit has not been issued as the environmental assessment report submitted by SANPO in 2023 is still awaiting approval from the national authority.

## Conclusions

The paper aims to stand alone as a valuable contribution to the understanding of pigeon racing in South Africa, providing unique insights into the various aspects of the sport. The survey findings have enhanced our comprehension of the social, economic, cultural, and organizational facets of pigeon sport in the country. It is clear

that any potential curtailment or significant restriction of the sport could adversely affect the physical and mental well-being fanciers, underscoring broader consequences that merit careful consideration. The importance of heritage in sport cannot be overstated as it provides a window into the past and helps us understand our socio-cultural evolution. Sports have always been an integral part of society, and the legacy of sports has played a significant role in shaping the identity and cultural heritage of various sport communities. Given the historical context of the sport there has to be some merit in protecting the sport as an intangible heritage. Given the potential impact of national environmental legislation on pigeon sport, the delay in SANPO's permit issuance has cast a shadow of uncertainty over the industry. Once the national permit is granted, rigorous adherence to regulations and permit conditions will necessitate extensive monitoring and reporting, placing a considerable administrative and technical burden on SASCOC, clubs, and federations. It is recommended that SANPO devise a strategic plan to address these demands. In addition, locally, there is an urgent need for SANPO to collaborate with the South African Local Government Association to establish standardized rules for pigeon keeping in urban areas nationwide.

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