

THE NATIONAL DNA DATA BANK OF CANADA

ANNUAL REPORT 2022/2023



INQUIRIES REGARDING THE CONTENT OF
THIS REPORT OR REQUESTS FOR ADDITIONAL
COPIES SHOULD BE ADDRESSED TO:
NATIONAL DNA DATA BANK OF CANADA

Forensic Science and Identification Services
Royal Canadian Mounted Police
NPS Building, 73 Leikin Drive
Ottawa, Ontario K1A 0R2
<https://www.rcmp-grc.gc.ca/en/forensics/national-dna-data-bank>

© His Majesty the King in Right of Canada, as represented
by the Royal Canadian Mounted Police, 2023.

PS61-4E-PDF
1924-7109



TABLE OF CONTENTS

2	MESSAGE FROM THE COMMISSIONER
3	QUICK FACTS
3	ABBREVIATIONS
4	THE NATIONAL DNA DATA BANK
6	OFFENDER AND FORENSIC HITS
6	CONVICTED OFFENDER SUBMISSIONS
8	PROCESSING OF BIOLOGICAL SAMPLES
8	<i>Convicted Offender Samples</i>
8	<i>Crime Scene and Victim Samples</i>
8	<i>Voluntary Donor Samples</i>
9	<i>Missing Persons, Relatives of Missing Persons or Human Remains Samples</i>
10	COMPARING DNA PROFILES
10	INTERNATIONAL PARTICIPATION
11	PRIVACY OF INFORMATION
12	THE VALUE OF SECONDARY DESIGNATED OFFENCE SUBMISSIONS
13	SUCCESS STORIES
18	NATIONAL DNA DATA BANK ADVISORY COMMITTEE
19	KEY STATISTICS
24	FINANCIAL STATEMENT

MESSAGE FROM THE COMMISSIONER

ROYAL CANADIAN MOUNTED POLICE

I am pleased to present the 2022-2023 National DNA Data Bank annual report.

For more than 20 years, the National DNA Data Bank and its many partners have provided a valuable service to Canadians. Its important work has contributed to solving criminal and humanitarian investigations by identifying suspects, victims and missing persons, and by linking crime scenes.

In spite of the residual impacts of the pandemic, the dedicated professionals at the National DNA Data Bank have pressed forward in providing essential national services. With more than half a million DNA profiles in the criminal indices, the National DNA Data Bank has matched 85,344 DNA profiles to date. These matches provide vital information that can help law enforcement agencies further or conclude criminal investigations. I am pleased to share several of these success stories in this year's report.

The National Missing Persons DNA Program is growing, as partner agencies continue to submit biological samples and DNA profiles for humanitarian investigations. The database now contains 2,155 DNA profiles and has reported 67 DNA associations. This valuable work provides information about unidentified human remains, which can help bring closure to the loved ones of missing persons.



I am deeply proud of our employees at the National DNA Data Bank for their unwavering commitment to help keep Canadians safe, and to bring needed answers to victims and their loved ones. Thank you all for your resolve, your expertise and your professionalism.

Mike Duheme
Commissioner

QUICK FACTS

Convicted Offender Samples Received in 2022/23 ^{1, 2}	16,975
Increase in the Crime Scene Index in 2022/23	13,174
Offender Hits (Convicted Offender to Crime Scene) in 2022/23	5,236
Forensic Hits (Crime Scene to Crime Scene) in 2022/23	736
Associations made in 2022/23 (Number of Offender and Forensic Hits)	5,972
Associations made since June 30, 2000 (Number of Offender and Forensic Hits)	85,344
Human Remains Hits – Putative identifications made since March 6, 2018 ³	67

¹ 2022/23 refers to the fiscal year from April 1, 2022 through March 31, 2023.

² The global pandemic continued to impact the volume of submissions to the National DNA Data Bank throughout 2022/23.

³ The date the humanitarian indices came into force.

ABBREVIATIONS

CODIS	Combined DNA Index System
DNA	Deoxyribonucleic acid
INTERPOL	International Criminal Police Organization
RCMP	Royal Canadian Mounted Police




THE NATIONAL DNA DATA BANK

The National DNA Data Bank is a centralized collection of over half a million deoxyribonucleic acid (DNA) profiles that helps investigators across the country solve a range of crimes. The main goals are simple:

- link crime scenes across jurisdictional boundaries;
- help identify or eliminate suspects;
- determine whether a serial offender has been involved in certain crimes; and
- assist investigators, coroners and medical examiners to find missing persons and identify human remains.

On behalf of the Government of Canada, the Royal Canadian Mounted Police (RCMP) is the steward of the National DNA Data Bank, which operates for the benefit of Canada's entire law enforcement community.



The National Missing Persons DNA Program celebrated its 5 year anniversary in March 2023. In 2018, "Lindsey's Law" introduced legislative amendments to the DNA Identification Act that, to date, have resulted in more than 67 associations to assist with the identification of found human remains.

The *DNA Identification Act* allows the National DNA Data Bank to maintain the following indices (databases):

- Convicted Offenders Index
 - Crime Scene Index
 - Victims Index
 - Voluntary Donors Index
 - Missing Persons Index
 - Relatives of Missing Persons Index
 - Human Remains Index
- DNA profiles contained in the Victims Index and Voluntary Donors Index are compared to DNA profiles in the other indices. This helps to identify unknown victims, link crime scenes together through victim and voluntary donor DNA profiles, or eliminate the voluntary donors from the focus of an investigation. The DNA profiles from voluntary donors can also be used for elimination purposes in humanitarian investigations.

The Convicted Offenders Index, Crime Scene Index, Victims Index and Voluntary Donors Index provide assistance to criminal investigations as follows:

- DNA profiles found at crime scenes are compared to the DNA profiles of convicted offenders. When a match is made, it can help identify a suspect. An "offender hit" is the term used to describe this type of DNA match. If no match is made, this information can also help eliminate suspects.
- DNA profiles found at different crime scenes are compared. When a match is made between DNA profiles found at separate crime scenes, it can help link crimes for which no suspects have been identified. This determines whether a serial offender is involved in a number of cases. A "forensic hit" is the term used to describe this type of DNA match.

As part of the National Missing Persons DNA Program, the National DNA Data Bank maintains the Missing Persons Index, Relatives of Missing Persons Index and Human Remains Index to support humanitarian investigations at the national level. These indices allow DNA profiles developed from biological samples and other items collected and submitted by police, coroners and medical examiners to be compared to other DNA profiles in the National DNA Data Bank. The DNA profiles in the Relatives of Missing Persons Index can only be compared to those in the Missing Persons Index and Human Remains Index.

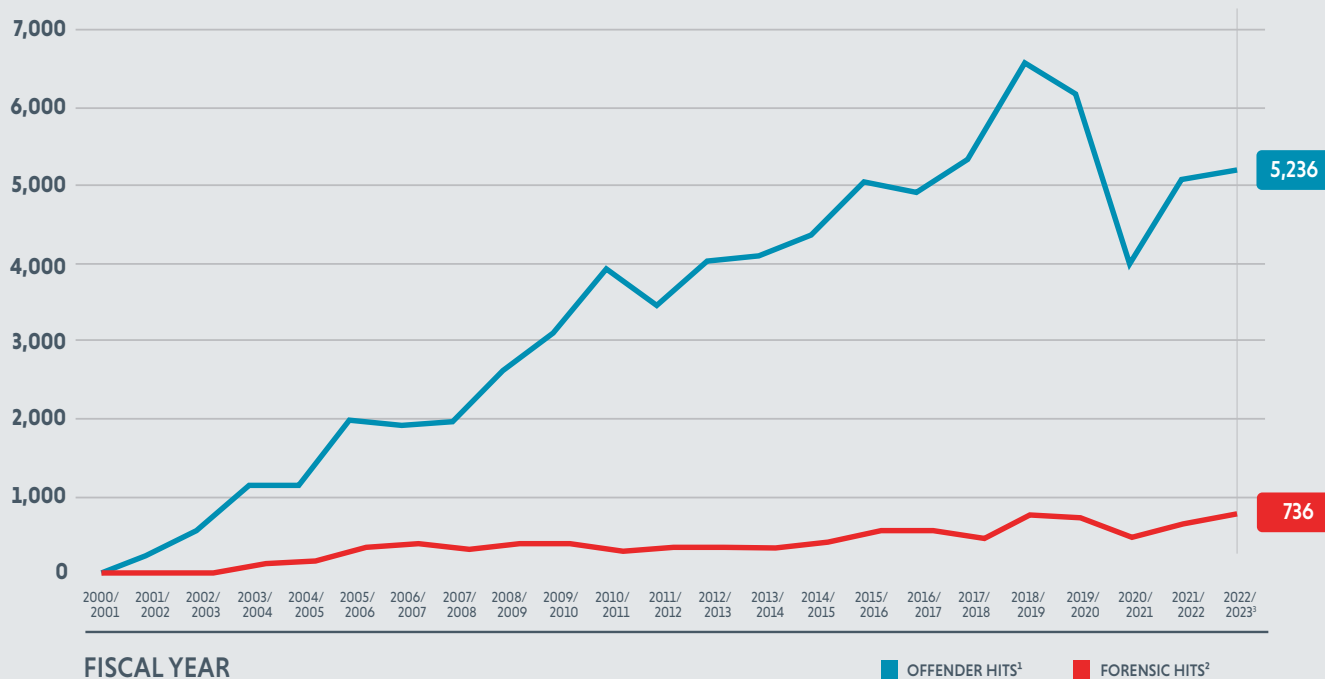


OFFENDER AND FORENSIC HITS

When the National DNA Data Bank first began operating in 2000, it contained few DNA profiles. As more DNA profiles were added over the years, a greater number of matches were made in less time.

OFFENDER¹ AND FORENSIC² HITS

NUMBER OF HITS



¹An offender hit is a match between DNA found at a crime scene and the DNA of a convicted offender.

²A forensic hit is a match between DNA profiles found at separate crime scenes.

³The global pandemic continued to impact the volume of submissions to the National DNA Data Bank throughout 2022/23.

CONVICTED OFFENDER SUBMISSIONS

Every year, the National DNA Data Bank processes convicted offender submissions consisting of:

- biological samples (used to generate DNA profiles that are entered into the Convicted Offenders Index); or
- endorsement submissions (fingerprints and documentation for convicted offenders whose DNA profiles are already in the Convicted Offenders Index).



All convicted offender submissions are recorded in an internal tracking system without any of the offender's personal information.



Before executing a new DNA order or authorization, a police officer must query the Canadian Police Information Centre to determine whether a convicted offender's DNA profile is already in the Convicted Offenders Index. Endorsements therefore consist only of fingerprints and documentation. The endorsement process ensures that a convicted offender's DNA profile will remain in the index if:

- the conviction for which the original DNA order was made is being quashed on appeal;
- the original DNA order/authorization is being quashed on appeal; or
- the retention period is expiring because the person was either:
 - convicted as a young person; or
 - previously discharged under Section 730 of the Criminal Code of a designated offence. (Note: this condition was removed as of March 6, 2018 when amendments to the *DNA Identification Act* came into force).

When a biological sample or an endorsement submission is received, the documentation is reviewed to ensure that the DNA order was issued for a criminal offence for which DNA can legally be collected and that the offender's personal information required for the submission is complete and accurate.

All convicted offender submissions are recorded in an internal tracking system without any of the offender's personal information. Documentation for convicted offender biological sample and endorsement submissions are sent to the RCMP's Canadian Criminal Real Time Identification Services so they can be certified; associated with an individual by fingerprint comparison; and recorded in the individual's criminal record.

PROCESSING OF BIOLOGICAL SAMPLES

Convicted Offender Samples

When someone is found guilty of committing a designated offence for which a biological sample can be obtained, the judge has the choice to issue a DNA order. However, for some designated offences, such as murder, the judge must issue an order. A trained peace officer will then collect a biological sample from that person by taking a blood, buccal or hair sample. The National DNA Data Bank is responsible for processing all convicted offender biological samples and entering the DNA profiles derived from these samples into the Convicted Offenders Index.

Kits designed specifically for the National DNA Data Bank are used for collecting biological samples from offenders. There are three types of kits available:

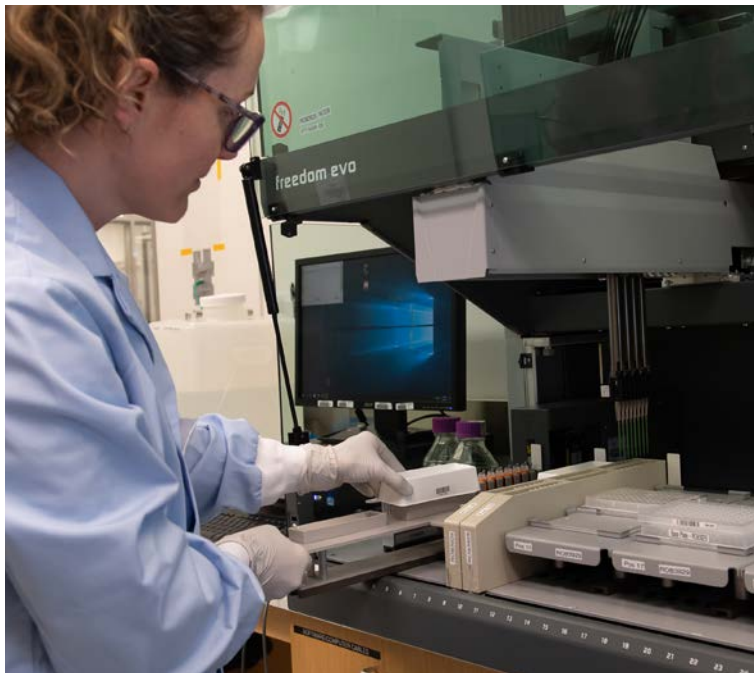
- **BLOOD:** The sample is obtained by using a sterile lancet to prick the fingertip
- **BUCCAL:** The inside of the mouth is rubbed with a foam applicator to obtain skin cells
- **HAIR:** Six to eight hairs are pulled out with the root sheath attached

Although all three types of biological samples have been legally approved for collection, more than 98% of samples taken from convicted offenders are blood samples. The officers are encouraged to collect blood samples because blood has proven to be more reliable than hair or buccal samples in generating high-quality DNA profiles.

Crime Scene and Victim Samples

Crime scene DNA evidence is collected by police investigators and examined by forensic laboratories across Canada to generate DNA profiles. Only a DNA profile derived from a designated offence can be added to the Crime Scene Index or the Victims Index. The National DNA Data Bank is also responsible for removing victims' DNA profiles in accordance with the *DNA Identification Act*. The following public forensic laboratories are authorized to add DNA profiles to the Crime Scene Index and the Victims Index:

- RCMP National Forensic Laboratory Services in Ottawa, Edmonton and Surrey;
- Centre of Forensic Sciences in Toronto and Sault Ste. Marie, Ontario; and
- Laboratoire de sciences judiciaires et de médecine légale in Montréal, Quebec.



Voluntary Donor Samples

Samples collected from voluntary donors during the course of a criminal investigation of a designated offence are processed by a public forensic laboratory. If the resulting DNA profile provides a potential benefit to the investigation, it is added to the Voluntary Donors Index. Voluntary donor samples collected as part of a humanitarian investigation are provided to the National DNA Data Bank for processing and added to the index. The National DNA Data Bank is responsible for removing voluntary donors' DNA profiles in accordance with the *DNA Identification Act*.

Missing Persons, Relatives of Missing Persons and Human Remains Samples

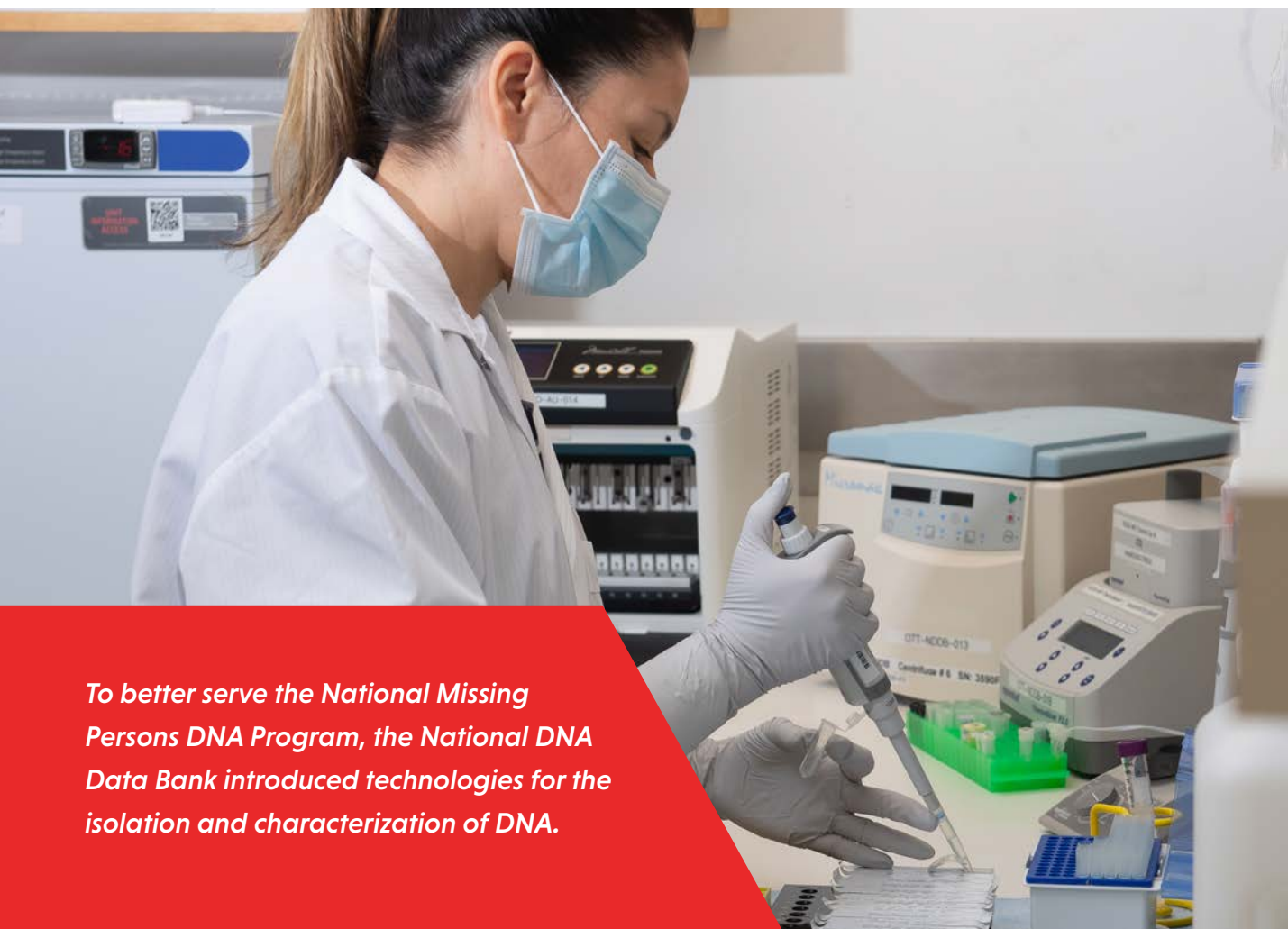
Processing of samples from missing persons, relatives of missing persons and found human remains falls within the National Missing Persons DNA Program. This program is a partnership between the National Centre for Missing Persons and Unidentified Remains and the National DNA Data Bank. The role of the National Centre is to act as a single point of contact for investigators. As such, the National Centre authorizes the submission for missing persons and human remains investigations.

Under the *DNA Identification Act*, the National DNA Data Bank is responsible for maintaining the humanitarian indices and also for:

- receiving biological samples from submitting agencies and developing DNA profiles;
- receiving DNA profiles from approved laboratories for technical review;
- interpreting and comparing DNA profiles from human remains, relatives of missing persons and

- personal belongings from missing persons;
- adding and removing DNA profiles in the Human Remains Index, Relatives of Missing Persons Index and Missing Persons Index in accordance with the legislation;
- issuing and explaining kinship and identity association reports; and
- providing scientific advice and support to the National Centre for Missing Persons and Unidentified Remains and investigators, as required.

To better serve the National Missing Persons DNA Program, the National DNA Data Bank introduced technologies for the isolation and characterization of DNA. Specifically, it introduced procedures for the development of DNA profiles from personal effects and hard tissue samples, such as bone and teeth. In addition, procedures were validated to analyze the Y-chromosome and utilize an advanced technology using Next Generation Sequencing, which allows for mitochondrial DNA analysis.



To better serve the National Missing Persons DNA Program, the National DNA Data Bank introduced technologies for the isolation and characterization of DNA.

CODIS has become an internationally accepted tool for forensic laboratories, allowing DNA profile information to be compared using a standard, secure format.



COMPARING DNA PROFILES

The DNA profiles are compared using the Combined DNA Index System (CODIS), which is a secure network and software program developed by the Federal Bureau of Investigation and the United States Department of Justice, and provided to the RCMP. CODIS has become an internationally accepted

tool for forensic laboratories, allowing DNA profile information to be compared using a standard, secure format. In Canada, the National DNA Data Bank uses CODIS for daily comparisons of DNA profiles. Each new DNA profile entered into one of the national DNA indices is automatically compared against all existing profiles contained in other national DNA indices, as permitted by the *DNA Identification Act*.

INTERNATIONAL PARTICIPATION

The National DNA Data Bank shares DNA information with international investigating authorities through an international DNA Information Sharing Agreement with the International Criminal Police Organization (INTERPOL). This agreement is approved by the Government of Canada and is limited to investigations and prosecutions of designated offences or investigations involving missing persons and unidentified human remains.

Since the first international agreement was signed in 2002, 1,960 incoming international requests related to criminal investigations to search the Convicted Offenders Index, the Crime Scene Index, the Missing Persons Index and the Human Remains Index were received. These searches produced 9 offender hits and 13 forensic hits. Furthermore, 384 requests related to criminal investigations were sent to other countries with an INTERPOL agreement

for comparison to DNA profiles developed from crime scene samples, resulting in 10 offender hits and 2 forensic hits.

In 2018, the agreement was updated to allow international comparisons of DNA profiles from missing persons and unidentified human remains. Since then, 103 incoming international requests were received to search missing persons and unidentified human remains profiles against the Convicted Offenders Index, the Crime Scene Index, the Missing Persons Index and the Human Remains Index. Furthermore, 58 requests were sent to other countries with an INTERPOL agreement for comparison of DNA profiles developed from missing persons and unidentified human remains. The incoming requests resulted in 1 putative identification and the outgoing requests resulted in 1 putative identification.

PRIVACY OF INFORMATION

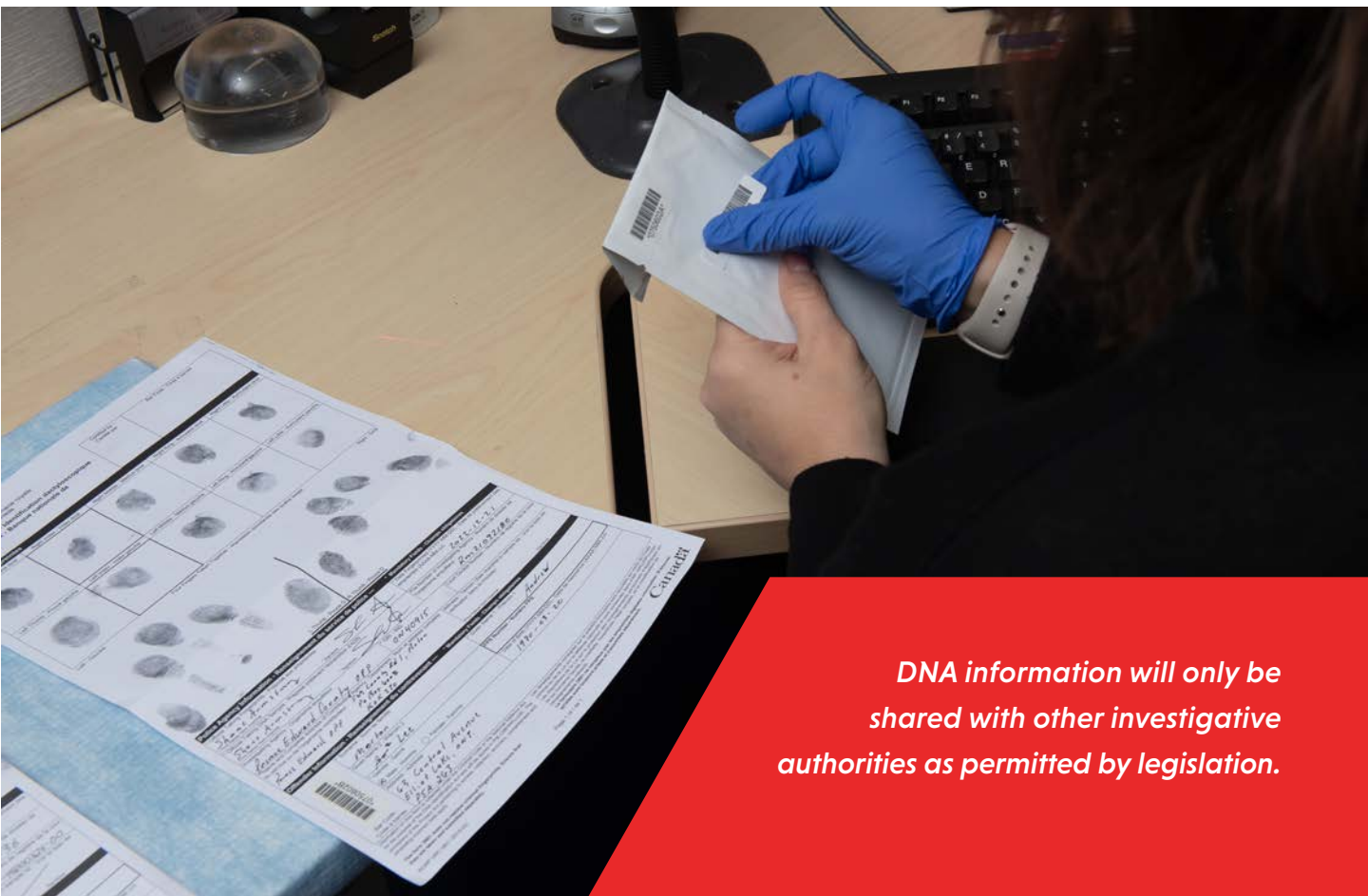
The *DNA Identification Act* specifies that DNA profiles in the National DNA Data Bank's indices can only be used for law enforcement or humanitarian purposes. The Act also clearly states that the DNA profiles in the Relatives of Missing Persons Index can only be compared to DNA profiles in the Missing Persons Index and Human Remains Index.

As an additional safeguard to protect the privacy of an individual, when a convicted offender's DNA sample is received, the donor's identity is separated from his or her genetic information, and the sample is identified by a numeric bar code. These bar codes are the only link connecting personal information, the biological sample and the DNA profile. The offender's personal information is kept in a separate registry maintained by the RCMP's Canadian Criminal Real Time Identification Services, which National DNA Data Bank employees cannot access. This process ensures that the National DNA Data Bank employees do not have access to offenders' personal information for DNA profiles they are processing. Likewise, Canadian

Criminal Real Time Identification Services employees do not have access to the genetic information of an offender. With the exception of biological sex, DNA profiles do not reveal any medical or physical information about the donor.

The Act further protects Canadians' privacy rights by requiring informed consent for submissions of DNA profiles to the Relatives of Missing Persons Index, the Victims Index and the Voluntary Donors Index. This consent can be withdrawn at any time by the contributor. In addition, at least once every five years, the investigating agency is contacted about the case to ensure that the person from whom the DNA profile was obtained has not withdrawn their consent. Investigators are also asked whether they believe the DNA profile will continue to assist in the investigation for which it was obtained. If removal is requested or if the investigating agency fails to respond, then the DNA profile is removed from the appropriate DNA index and the biological sample is destroyed.

Lastly, DNA information will only be shared with other investigative authorities as permitted by legislation.



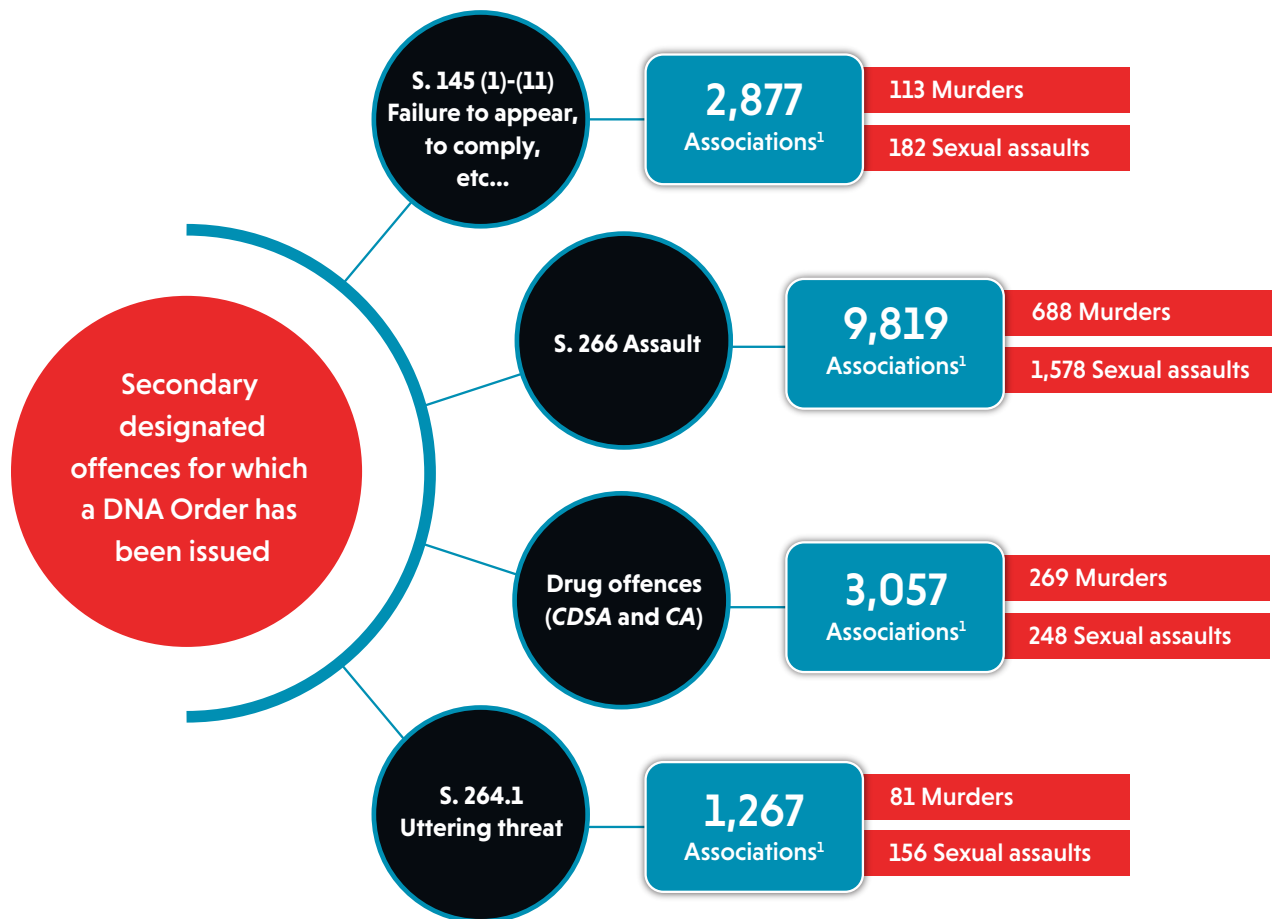
DNA information will only be shared with other investigative authorities as permitted by legislation.

THE VALUE OF SECONDARY DESIGNATED OFFENCE SUBMISSIONS

The *Criminal Code* classifies those offences that may be the subject of a DNA order as either primary or secondary designated offences. When the National DNA Data Bank first started its operations in 2000, the number of secondary designated offences was limited. In 2008, the *Criminal Code* was amended and the list of secondary designated offences was expanded

to include a wider range of offences (e.g., failure to appear and drug offences). While usually less violent, these offences can help solve more serious criminal offences.

To illustrate the value of these offences, offender DNA match data was selected for a few common secondary designated offences. The figure below provides the number of offender matches to ongoing investigations (including murders and sexual assaults) that were the outcome of DNA orders being issued for offenders convicted of secondary designated offences.



¹ Associations refers to the number of Offender Hits.

In 2008, the Criminal Code was amended and the list of secondary designated offences was expanded to include a wider range of offences (e.g., failure to appear and drug offences).

SUCCESS STORIES

It is hard to imagine a time before the National DNA Data Bank was used for the identification of criminals in Canada. A driving force for the creation of the National DNA Data Bank in 2000 was Dr. Ronald Fourney. Hired by the RCMP nearly 34 years ago, Dr. Fourney was a founding member of the RCMP DNA Program. Not only did he witness the evolution of forensic science, his impact in leading the exploration and innovation on how DNA analysis might be used to help criminal and humanitarian investigations was remarkable.

The RCMP's use of DNA was first raised in a Canadian courtroom in 1989. At that time, DNA evidence was a new concept and the expertise of Dr. Fourney and other pioneers was needed to explain the science for it to be trusted in a court of law. Today, courtrooms routinely rely on DNA evidence that is collected at crime scenes.

Dr. Fourney started what turned out to be a long-standing commitment and career in advancing and promoting the standardized use of DNA to support investigations and criminal proceedings. He guided the implementation of sound processes that paved the way for the creation of the National DNA Data Bank in 2000. This included the development and implementation of one of the first electronic DNA sample tracking systems in the world, and a fully automated process for high volume DNA analysis of convicted offenders' biological samples.

The growing use of DNA required corresponding changes in legislation and Dr. Fourney was pivotal in guiding and moving these initiatives forward as the Director of the National DNA Data Bank. In 2008, a new law was enacted that increased the number of eligible designated offences. This significantly increased the number of biological samples collected from convicted offenders and subsequently the number of DNA profiles entered into the Convicted Offenders Index. In 2018, legislation was changed so that DNA could be used to assist in the investigations of missing persons and found unidentified human remains. Dr. Fourney was at the helm of each milestone and initiative, including in the identification of victims in several mass disasters.

While science continues to advance, Dr. Fourney announced his retirement from the RCMP last year. It is a time to reflect on the shoulders upon which so many victims and loved ones have relied on to get answers. His achievements and contributions lie at the heart of the following success stories and countless others that have taken place, that are being investigated and that will come to pass.



The growing use of DNA required corresponding changes in legislation and Dr. Fourney was pivotal in guiding and moving these initiatives forward as the Director of the National DNA Data Bank.

DNA HELPS QUICKLY IDENTIFY AND ARREST SUSPECT

On the night of July 10, 2020, Surrey RCMP responded to a 911 call to assist a woman who was sexually assaulted in the area of a commonly used path leading to public transport. When police arrived, they learned a man holding a weapon had approached the woman, robbed her, forced her into nearby bushes and sexually assaulted her. Afterwards, the man fled the scene and the woman was able to call for help. The woman was then attended to and transported to a hospital to receive medical care.

Early in the investigation, police had identified a possible suspect. In order to link the suspect to the offence, DNA samples collected from the victim were submitted to an RCMP forensic laboratory.

An unknown male DNA profile was generated and submitted to the National DNA Data Bank. The DNA profile matched to a convicted offender, but that offender was not the suspect identified earlier by investigators.

Due to the DNA match result, police were able to redirect their investigation quickly and identify, arrest and charge the 30-year-old man responsible for the sexual assault within a two-week period.

In September 2022, the man was sentenced to nearly 27 months in prison for sexual assault with a weapon, unlawful confinement and robbery.

"In this investigation the DNA testing was crucial. Early on in the investigation we identified a suspect and were working to solidify our grounds. The DNA exhibits were submitted to further link our identified suspect to the offence; however, when the results were received we knew we had not identified the suspect who was responsible for the sexual assault. The Special Victims team was able to locate the proper suspect making a prompt arrest to further avert any future public safety issues."

**SERGEANT JASON
BARRETT**
Non-Commissioned
Officer in Charge
Special Victims Unit
Surrey RCMP


ADVANCEMENTS IN TECHNOLOGY HELP SOLVE ATTEMPTED MURDER COLD CASE

No file is ever closed until it is solved. This proved true for an investigation into the abduction, sexual assault and attempted murder of a child, where for several years there were no leads and no arrests in connection with the case.

Over the years, police continued to investigate hoping to find a lead to help solve this case. In 2003, shortly after the National DNA Data Bank was established and at a time when technology was improving, the victim's clothing was submitted to an RCMP forensic laboratory for analysis. Unfortunately, there were no results to help further the investigation at that time.

With time, forensic analysis made numerous advancements allowing higher success in the analysis of touch DNA – the analysis of skin cells left at a crime scene or on evidence such as clothing. These advancements prompted a new detective to revisit the cold case in 2020, and the child's clothing was resubmitted to the RCMP's forensic laboratory. This time an unknown male profile was generated by the laboratory and submitted to the National DNA Data Bank for comparison. A match was made to an individual in the Convicted Offenders Index for an assault conviction, which is a secondary designated offence.

With this new information, police began an extensive investigative project. In 2021, police arrested and charged the suspect with the abduction, sexual assault and attempted murder of the child. The offender pleaded guilty in 2022 to several of the charges and was sentenced to 10 years in prison.



"The importance of the work of the RCMP forensic laboratory on this file cannot be overstated. Without the DNA results, there would be no match and, ultimately, no arrest. The Historical Crimes Unit values the partnership with the RCMP forensic laboratory to help these investigations have successful conclusions."

DETECTIVE
Homicide Unit

AMBER ALERT SEARCH AREA TIGHTENED BY DNA

On August 31, 2021, at approximately 1:45 p.m., a 36-year-old man abducted a three-year-old boy in Sainte-Paule, Quebec. They were last seen at around 5:15 p.m. near a residence in the community before fleeing into the woods on an all-terrain vehicle. The Sûreté du Québec responded with a significant police presence in the hopes of quickly locating the boy. A regional AMBER Alert was issued that evening.

During their continued search the next day, police recovered the all-terrain vehicle. New information obtained by investigators led them to believe the man could be armed and dangerous, and possibly had fled the area in another vehicle. To help with the search, the New Brunswick RCMP extended the AMBER Alert to the northern communities of New Brunswick on September 1.

On September 2, police learned the man being sought had extensive forestry knowledge and wilderness survival training and experience. With this new information, Sûreté du Québec police believed

the man to still be in the area of Sainte-Paule, in the woods, taking shelter in a cabin or outbuilding.

As police intensified their search in the Sainte-Paule area on September 3, an item was located indicating that the suspect may still be present in the area. The item was submitted for urgent DNA analysis to help police with the search. The forensic laboratory in Montréal, along with the help of the National DNA Data Bank, promptly confirmed that the DNA profile generated from the item belonged to the suspect whose DNA profile was known to be in the Convicted Offenders Index.

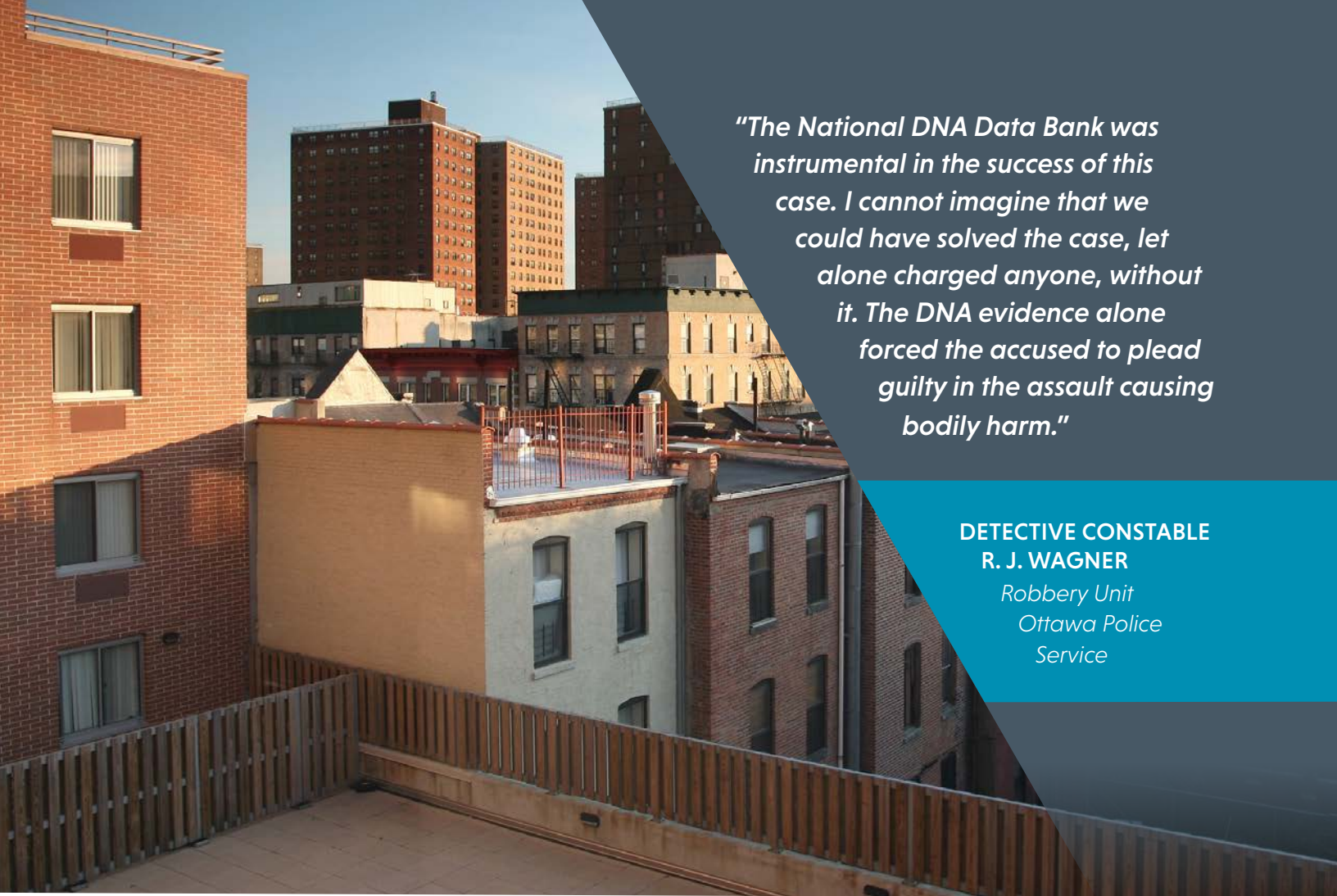
This information about the suspect's identity helped police to concentrate their search efforts in the area and, by the next day, lead them to a residence where the man and the boy were hiding. Throughout the night of September 4, police officers worked diligently to secure the safe release of the three-year-old boy and arrested the suspect. In 2022, the man pleaded guilty to numerous offences related to the abduction and was sentenced to 10 years in prison.

"The work performed confirmed that the fleeing suspect and the young boy were still alive two days after the abduction. In addition, the findings advanced the investigation by focusing the search area."

**DANNY DUFOUR,
SERGEANT INVESTIGATOR**

*Major crimes
investigation division
Sûreté du Québec*





"The National DNA Data Bank was instrumental in the success of this case. I cannot imagine that we could have solved the case, let alone charged anyone, without it. The DNA evidence alone forced the accused to plead guilty in the assault causing bodily harm."

**DETECTIVE CONSTABLE
R. J. WAGNER**
*Robbery Unit
Ottawa Police
Service*

DNA IDENTIFIES SUSPECT THREE YEARS AFTER SERIOUS ASSAULT

In July 2016, a woman was taken to a building rooftop, where she was sexually assaulted and then pushed off the building by an unknown man. The victim reported the assault and as part of the investigation, police gathered the evidence available and obtained a description of the man believed to be involved. The evidence was sent to the Center of Forensic Sciences for DNA analysis and an unknown male DNA profile was generated. The DNA profile was submitted to the National DNA Data Bank; however, there was no immediate match to help identify the suspect.

In 2019, the DNA of an offender who was recently convicted of a firearm offence was entered into the Convicted Offenders Index. The offender's DNA profile matched to the profile gathered from the 2016 assault investigation. After three years, a suspect was finally identified in connection with the case.

In 2020, police arrested and charged the 26-year-old suspect with sexual assault, aggravated assault and forcible confinement. The DNA evidence helped to obtain a guilty plea for assault causing bodily harm and a two-year sentence.

NATIONAL DNA DATA BANK

ADVISORY COMMITTEE

Established in 2000 under the mandate of the *DNA Identification Act*, the National DNA Data Bank Advisory Committee provides strategic guidance and direction on scientific advancements, matters of law, legislative changes, privacy issues and ethical practices. In addition, the Advisory Committee reports to the Commissioner of the RCMP on matters related to the National DNA Data Bank operations and advises the Commissioner on a range of issues related to DNA ethics, scientific advancements and legislative changes. The members of the Advisory Committee are appointed by the Minister of Public Safety and collectively represent a diverse spectrum of expertise. The current members of the Advisory Committee are:

BRENDAN HEFFERNAN

(CHAIRPERSON)

RCMP Chief Superintendent (retired), representing the police community.

DERRILL PREVETT,

K.C. (VICE-CHAIR)

Attorney (retired) and legal contributor, Crown Counsel for thirty-three years with experience in many high profile cases involving DNA evidence.

DR. FREDERICK R. BIEBER, PH. D.

Bio-Medical Ethics, Specialist and Associate Professor of Pathology at Harvard Medical School. Dr. Bieber is a medical geneticist at the Brigham and Women's Hospital in Boston, Massachusetts.

DR. RON FOURNEY, PH. D., O.O.M.*

Director of Science and Strategic Partnerships, RCMP, and a founding member of the National DNA Data Bank. (2000 to Oct. 2022)

SUE O'SULLIVAN, B.A., O.O.M.

Human Rights Specialist, with extensive experience in advocacy for victims of crime.

DR. MICHAEL SZEGO, PH. D., MHSC.

Clinical Ethicist and Director of the Centre for Clinical Ethics. Dr. Szego is an Assistant Professor, Department of Family and Community Medicine and Dalla Lana School of Public Health at the University of Toronto.

DR. BEN KOOP, PH. D.

Medical Genetics Expert and Professor of Biology at the University of Victoria.

LACEY BATALOV

Representing the Privacy Commissioner of Canada.

* Replacement candidate pending at the time this report was written.

KEY

STATISTICS

Biological samples: June 30, 2000 through March 31, 2023

Endorsements: January 1, 2008 through March 31, 2023

The global pandemic continued to impact the volume of submissions to the National DNA Data Bank throughout 2022/23.



TABLE 1 – DNA Profiles Contained in the Criminal Indices	
Convicted Offenders Index	440,139
Crime Scene Index	210,001
Victims Index	120
Voluntary Donors Index	0
TOTAL	650,260

TABLE 2 – DNA Profiles Contained in the Humanitarian Indices	
Missing Persons Index	210
Relatives of Missing Persons Index	1,602
Human Remains Index	343
TOTAL	2,155

Biological Samples Received versus DNA Profiles Contained in the Convicted Offenders Index:

As of March 31, 2023, 489,182 biological samples were received, of which 440,139 DNA profiles are contained in the Convicted Offenders Index. The difference of 10 % can be attributed to rejected samples, duplicate samples, biological samples in the process of being analyzed and DNA profiles removed because of an absolute or conditional discharge, expired retention period, or because the conviction or the DNA order/ authorization was quashed on appeal.

TABLE 3 – Breakdown of DNA Profiles Contained in the Crime Scene Index

Centre of Forensic Sciences	82,465
Laboratoire de sciences judiciaires et de médecine légale	57,085
RCMP National Forensic Laboratory Services	70,451
TOTAL	210,001

TABLE 4 – Matches and Associations Reported

Offender Hit	76,806
Forensic Hit	8,538
Victim Hit	10
Human Remains Hit - Putative identification	67
Humanitarian Index Hit - Investigative lead	23
Offender Duplicate ¹	15,253
Identical DNA Profiles	423

¹Does not include duplicate samples identified prior to laboratory analysis.

EXPLANATORY NOTES

OFFENDER HIT: A DNA profile developed from crime scene evidence and entered into the Crime Scene Index matches a DNA profile in the Convicted Offenders Index.

FORENSIC HIT: A DNA profile developed from crime scene evidence and entered into the Crime Scene Index matches another crime scene DNA profile in the Crime Scene Index.

VICTIM HIT: A DNA profile developed from a victim and entered into the Victims Index matches a DNA profile in another index.

HUMAN REMAINS HIT - PUTATIVE IDENTIFICATION: A DNA profile developed from human remains and entered into the Human Remains Index matches or is associated to a DNA profile(s) in the Relative of Missing Persons Index, the Missing Persons Index or the Convicted Offenders Index.

HUMANITARIAN INDEX HIT - INVESTIGATIVE LEAD: A DNA profile developed from human remains and entered into the Human Remains Index or a DNA profile developed from a personal effect of a missing person and entered into the Missing Persons Index matches to a crime scene DNA profile in the Crime Scene Index.

OFFENDER DUPLICATE: Cases where two biological samples from the same person were submitted.

IDENTICAL DNA PROFILES: DNA profiles of identical twins.



TABLE 5 – Offender Hits by Case Type

Break and Enter Offences	32,767
Robberies	8,269
Sexual Offences	7,792
Assaults	6,167
Homicides	5,082
Attempted Murders	1,516
Others	15,213
TOTAL	76,806

TABLE 6 – Convicted Offender Submissions Received – Breakdown by Category of Offence

	Biological Samples	Endorsements
Primary	261,362	95,985
Secondary	223,757	118,198
Other	4,063	1,299
TOTAL	489,182	215,482

NOTE: The “Other” category includes submissions received following a conviction for a non-designated offence or without a DNA court order. These submissions are not processed unless a corrected order is received.

Primary and Secondary Offences: See section 487.04 of Criminal Code of Canada and section 196.11 of the National Defence Act.

TABLE 7 – Convicted Offender Submissions Received – Breakdown by Type of Offender

	Biological Samples	Endorsements
Adult Offender	430,239	207,812
Young Offender	58,821	7,662
Military Offender ¹	122	8
TOTAL	489,182	215,482

¹ A member of the military convicted of a designated offence.

TABLE 8 – Convicted Offender Submissions Received – Breakdown by Type of Offence

	Biological Samples	Endorsements
Assaults	299,118	142,625
Sexual Offences	106,346	16,321
Break and Enter Offences	67,919	44,046
Robberies	54,777	23,795
<i>Controlled Drugs and Substances Act and Cannabis Act</i> Offences	45,556	20,012
Homicides	10,900	2,748
Others	80,076	70,217
TOTAL	664,692	319,764

NOTE: More than one offence may be associated with a submission.

TABLE 9 – Convicted Offender Submissions Received by Province/Territory

	April 1, 2022 to March 31, 2023		June 30, 2000 to March 31, 2023	
	Biological Samples	Endorsements	Biological Samples	Endorsements (from Jan 1st, 2008)
British Columbia	1,383	1,047	54,365	23,229
Alberta	1,849	1,448	52,851	22,574
Saskatchewan	914	567	21,252	5,466
Manitoba	863	900	29,548	12,554
Ontario	7,778	8,551	214,999	122,479
Quebec	3,380	1,646	83,530	21,259
New Brunswick	279	158	6,521	1,077
Nova Scotia	193	75	12,151	3,149
Prince Edward Island	40	15	1,336	159
Newfoundland & Labrador	155	96	6,664	1,615
Yukon	26	18	898	288
Northwest Territories	61	35	2,579	936
Nunavut	54	35	2,488	697
TOTAL	16,975	14,591	489,182	215,482

NOTE: The above information represents the convicted offender submissions received and is not reflective of the number of convictions eligible for a DNA order.

REJECTION OF SUBMISSIONS

The National DNA Data Bank has rejected only 7,586 (1.6 %) of the biological samples and 3,120 (1.4 %) of the endorsements it has received to date. Reasons for rejection include: the offender was convicted of a non-designated offence, the biological sample was inadequate, the collection kit used was inappropriate (sample), the offender's DNA profile was not contained in the Convicted Offenders Index (endorsement), or the DNA order was missing or invalid.

COLLECTION OF ADDITIONAL BODILY SUBSTANCES

If a biological sample is rejected because the quality of the sample is deemed inadequate for DNA analysis, or if it was not submitted in accordance with the *DNA Identification Regulations*, an application for resampling can be authorized by a judge. Since June 30, 2000, 2,102 samples taken under this provision were received.

TABLE 10 – Breakdown of Biological Samples Destroyed and DNA Profiles Removed from the Convicted Offenders Index

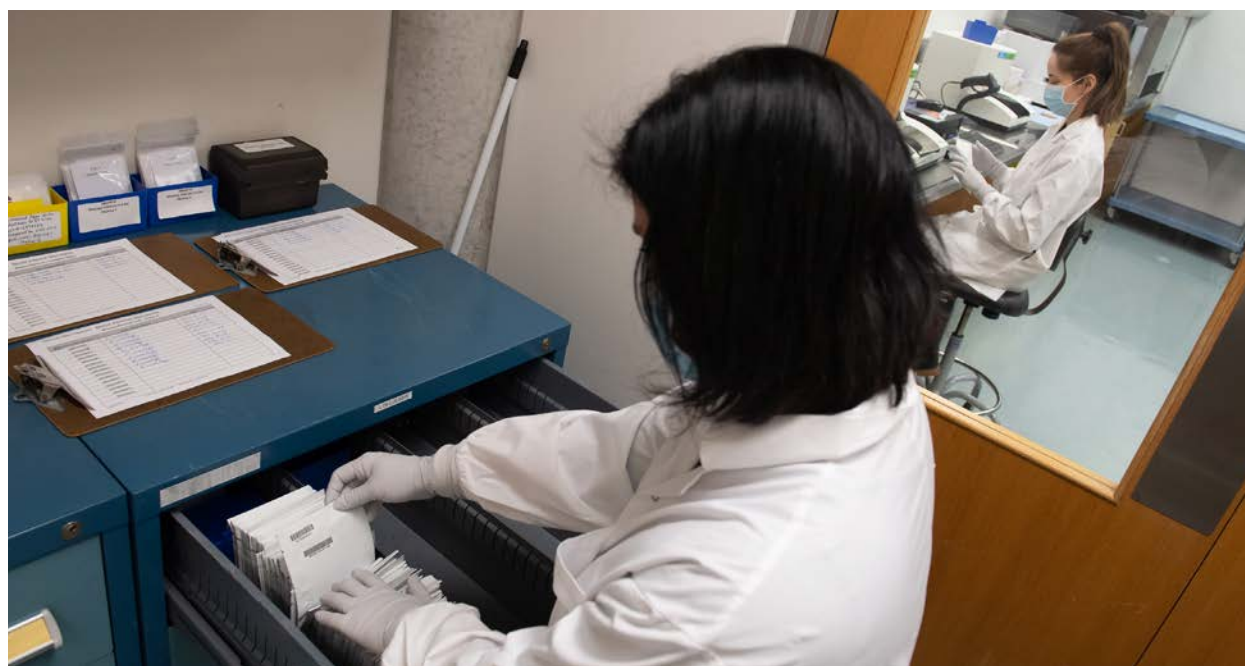
	ADULT	YOUNG PERSON
Conditional discharge (repealed for adults as of March 6, 2018)	11,312	2,306
Conviction quashed on appeal	909	34
Absolute discharge (repealed for adults as of March 6, 2018)	596	228
Duplicate sample (same order)	381	34
No suitable DNA profile obtained	152	23
Order/authorization quashed	53	9
Retention period expired	N/A	10,397
Other	74	12
TOTAL	13,477	13,043

N/A: Not applicable

TABLE 11 – Summary of Indices and Associations Made

	2018/19	2019/20	2020/21	2021/22	2022/23
Total number of DNA profiles in the Crime Scene Index at year-end	159,448	173,292	184,549	196,827	210,001
Increase in Crime Scene Index DNA profiles ¹	15,485	13,844	11,257	12,278	13,174
Total number of DNA profiles in Convicted Offenders Index at year-end	384,488	401,546	411,999	425,567	440,139
Increase in DNA profiles in the Convicted Offenders Index ¹	18,923	17,058	10,453	13,568	14,572
Submissions received (biological samples and endorsements)	38,898	37,447	23,181	28,306	31,566
Associations made (Offender and Forensic Hits)	7,291	6,857	4,327	5,622	5,972

¹ Net increase after rejections and removals from indices.



FINANCIAL STATEMENT¹

April 1, 2022 – March 31, 2023	
EXPENDITURE TYPE	EXPENDITURE (\$ thousands)
Personnel	2,639
Internal Services	794
Employee Benefit Plan	1,360
Transport and Telecommunications	16
Development and Infrastructure Support	57
Rentals	149
Repair and Maintenance	17
Utilities, Materials, Supplies and Miscellaneous	1,046
Capital and Minor Equipment Purchases	125
Sub-total	6,203
Allocated Indirect Costs ²	229
TOTAL	6,432

¹ The financial statement includes costs for the National Missing Persons DNA Program as it applies within the National DNA Data Bank.

² Indirect Costs include: Forensic Science and Identification Services administrative and corporate support, recruitment, the Quality Assurance Program, IT support and the National DNA Data Bank Advisory Committee.

